TETRA TECH

C-NAVY-03-09-3092W

March 12, 2009

Project Number G00028

Mr. Brian Helland, RPM
BRAC PMO, Northeast
4911 South Broad Street
Philadelphia, PA 19112

Reference: CLEAN Contract No. N62472-03-D-0057
Contract Task Order (CTO) No. 30

Subject: Record of Decision, Area of Concern 60
Naval Air Station South Weymouth, Weymouth, Massachusetts

Dear Mr. Helland:

The Record of Decision (ROD) for Area of Concern 60, the East Mat Drainage Ditch, at the former Naval Air Station South Weymouth in Weymouth, Massachusetts has been completed. Copies in both paper and electronic formats are being distributed to Navy, the U.S. Environmental Protection Agency, Massachusetts Department of Environmental Protection, Information Repositories, and others, as indicated on the distribution list below. The document will also be available at the Navy BRAC Program Management Office web site: http://www.bracpmo.navy.mil/basepage.aspx?baseid=71.

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), a legal notice announcing the availability of the ROD will be published in the Weymouth News, the Rockland Mariner/Standard, and the Patriot Ledger. Any questions regarding the Final East Mat Drainage Ditch ROD should be directed to your attention at (215) 897-4912. Please contact me at (978) 474-8403 if you have any questions.

Very truly yours,

Phoebe A. Call

Phoebe A. Call
Project Manager

PAC/lh

Enclosures

c: D. Barney, Navy (w/encl. – 1 paper copy, 1 CD)
B. Capito, Navy (w/o encl.) (electronic)
K. Keckler, EPA (w/encl. – 2 CDs)
D. Chaffin, MassDEP (w/encl. – 2 paper copies, 1 CD)
J. Cunningham, Weymouth, (w/encl. 1 – paper copy)
P. Scannell, Weymouth, (w/encl. 1 – paper copy)
H. Welch, Weymouth (w/encl. – 1 paper copy)
M. Bromberg, Rockland (w/encl. – 1 paper copy)
Executive Director, South Shore Tri-town Development Corp. (w/encl. – 1 paper copy, 1 CD)
R. Kleiman, LNR Property Corp. (w/encl. – 1 paper copy, 1 CD)
Tufts Library, Weymouth (w/encl. – 1 CD)
Public Library, Abington (w/encl. – 1 CD)
Public Library, Rockland (w/encl. – 1 CD)
Public Library, Hingham (w/encl. – 1 CD)
J. Trepanowski, TtNUS (w/encl. – 1 CD)
G. Glenn, TtNUS (w/o encl.) (electronic)
G. Wagner, TtNUS (w/encl. – 1 paper copy, 1 CD)
T. Campbell, TtNUS (w/encl. – 1 paper copy)
File G00028-3.2 (w/o encl.); G00028-8.0 (original, CD)

Tetra Tech NUS, Inc.
55 Jonspin Road, Wilmington, MA 01887-1020
Tel 978 474.8400 Fax 978.474.8499 www.ttnus.com

RECORD OF DECISION

AREA OF CONCERN 60 –
EAST MAT DRAINAGE DITCH

NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

BRAC PMO NORTHEAST
U.S. NAVY

DECEMBER 2008

Record of Decision
Naval Air Station South Weymouth
Table of Contents

SECTION **PAGE**

TABLES

NUMBER **PAGE**

FIGURES

NUMBER **PAGE**

APPENDICES

PART 1—DECLARATION

I. SITE NAME AND LOCATION

Naval Air Station (NAS) South Weymouth
1134 Main Street
Weymouth, Massachusetts 02190
NPL No. MA2170022022
Area of Concern (AOC) 60 – East Mat Drainage Ditch

II. STATEMENT OF BASIS AND PURPOSE

This decision document presents the No Further Action decision for AOC 60 (the East Mat Drainage Ditch) at the former NAS South Weymouth, Weymouth, Massachusetts. The decision was made in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC § 9601 *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300 *et seq.*, as amended. The regulatory program performed under the context of these combined laws and regulations is commonly referred to as "Superfund."

This decision is based on the Administrative Record, which has been developed in accordance with Section 113(k) of CERCLA, and which is available for review at the Navy's Caretaker Site Office (CSO) located at NAS South Weymouth, Weymouth, Massachusetts. Local to the site, public information repositories are also maintained at the Tufts Library in Weymouth, Massachusetts; the Abington Public Library in Abington, Massachusetts; the Hingham Public Library in Hingham, Massachusetts; and the Rockland Memorial Library in Rockland, Massachusetts. The Administrative Record Index (Appendix D) identifies each of the items comprising the Administrative Record upon which the selection of this decision is based.

This decision had been selected by the U.S. Navy and the U.S. Environmental Protection Agency (EPA). The Massachusetts Department of Environmental Protection (MassDEP) concurrence on the selected decision is presented in Appendix A.

III. DESCRIPTION OF THE SELECTED DECISION

This Record of Decision (ROD) sets forth the No Further Action decision for AOC 60 (the East Mat Drainage Ditch), at NAS South Weymouth.

The No Further Action decision for AOC 60 is based on the results of the Navy's streamlined ecological risk assessment, a human health evaluation, and the successful completion of removal actions conducted at the site. The streamlined ecological risk assessment identified one area with sediments containing polycyclic aromatic hydrocarbons (PAHs) at concentrations which posed a potential risk to ecological receptors. In 2004, the Navy conducted a removal action at this location and at a second location, at the request of the MassDEP. Approximately 63 tons of sediment were excavated and disposed offsite at a licensed facility. In 2006, at the request of regulatory agencies, the Navy collected additional sediment samples in areas of the ditch which had not been previously sampled. Analytical results identified one area with elevated PAH concentrations. In 2007, the Navy completed a hot spot excavation and removed approximately 31 tons of PAH- contaminated sediment.

A technical memorandum was completed in 2008 which evaluated current conditions at AOC 60. Analytical results for samples representing post-removal action conditions were compared to various EPA and MassDEP risk screening criteria. The memorandum concluded that current conditions at AOC 60

pose no risk to human health or the environment. Based on the results of the risk assessments, removal actions, and data evaluations, the Navy has determined that the site does not pose an unacceptable risk to human health or the environment.

AOC 60 is 1 of 17 AOCs currently on record at NAS South Weymouth. These AOCs have been addressed independently from the rest of NAS South Weymouth and, therefore, the Navy can proceed with closure of these sites as soon as they have met the requirements of the Superfund process. The signing of this No Further Action ROD by the Navy and EPA Region 1 documents the completion of the Superfund process for AOC 60. The No Further Action decision for AOC 60 is not expected to have any impact on the strategy or progress for the rest of the environmental investigations at NAS South Weymouth.

IV. STATUTORY DETERMINATIONS

A series of removal actions have been completed which have addressed site risks at AOC 60. No further cleanup actions are necessary at AOC 60 under CERCLA to ensure protection of human health and the environment. Under CERCLA, if no unacceptable risks to human health or the environment are identified, then no further actions, investigations, or monitoring is required. No hazardous substances remain on-site above levels that allow for unlimited use and unrestricted exposure; therefore, five-year reviews will not be required.

V. AUTHORIZING SIGNATURES

This ROD documents that No Further Action is necessary to ensure protection of human health and the environment for AOC 60 (the East Mat Drainage Ditch) at the former NAS South Weymouth. This decision was selected by the Navy and EPA. MassDEP's statement on the selected decision is presented in Appendix A.

Concur and recommended for immediate implementation:

U.S. Department of the Navy

By: _____ Date: 2/23/09

David A. Barney
BRAC Environmental Coordinator
Naval Air Station South Weymouth
U.S. Navy

U.S. Environmental Protection Agency, Region 1

By: _____ Date: 3/4/09

James T. Owens, III
Director, Office of Site Remediation and Restoration
Region 1 – New England
U.S. EPA

PART 2—DECISION SUMMARY

I. SITE NAME, LOCATION, AND DESCRIPTION

The former NAS South Weymouth (the Base) was placed on the National Priorities List (NPL) in May 1994 by EPA pursuant to CERCLA. During its operational period (1940s to 1996), NAS South Weymouth was owned by the U.S. Government, and was operated by the Department of the Navy. The Base is located primarily in the Town of Weymouth, Massachusetts (Figure 2-1). Portions of NAS South Weymouth extend into the adjacent Towns of Abington and Rockland, Massachusetts.

The Department of the Navy is the lead agency, and EPA is the lead regulatory agency, for CERCLA activities at NAS South Weymouth. The U.S. Department of Defense is the sole source of cleanup funding for the property. There are several operable units within the NAS South Weymouth NPL site (MA2170022022) that the Navy is addressing under CERCLA (Table 2-1). This ROD pertains to AOC 60 (the East Mat Drainage Ditch).

AOC 60 comprises the majority of the East Mat Ditch (EMD) located at the former NAS South Weymouth, Massachusetts (Figure 2-1). Not included in AOC 60 are approximately 200 feet of the western portion of the EMD which were investigated as part of AOC 61 (TACAN Outfall and Associated Areas). The East Mat is a semi-circular, 50-acre area located in the east-central portion of NAS South Weymouth. The mat is paved, but large sections are cracked and weathered. The East Mat Ditch varies in width from 5 feet to 20 feet, and in depth from 3 inches to 16 inches. Parts of the ditch are culverted underground.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. Site History

NAS South Weymouth was constructed during the 1940s as an aircraft facility for dirigibles used to patrol the North Atlantic during World War II. The facility was closed at the end of the war and reopened in 1953 as a Naval Air Station for aviation training. NAS South Weymouth was in continuous use from that time as a Naval Air Reserve training facility until it was operationally closed on September 30, 1996 as part of the Base Realignment and Closure (BRAC) program. Administrative closure was completed in September 1997.

The EMD provided drainage from the East Mat and the surrounding areas. The primary use of the East Mat was as a mooring area for lighter-than-air aircraft, aircraft fuel discharge area, aircraft de-arming area, and as a taxiway and parking area for aircraft. According to personnel interviewed for the Phase I EBS, during the 1950s through the 1970s, aircraft fuel tanks were drained directly into the drainage ditches surrounding the East Mat. Other unspecified materials were likely to have also been disposed of in the drainage ditches.

B. History of Site Investigations

The following sections provide an overview of the completed investigations at AOC 60. Full details regarding the environmental investigations are available for review in the EBS Phase I Report (Stone & Webster, 1996), Phase II EBS Report (Stone & Webster, 2000b), the Streamlined Ecological Risk Assessment (Stone & Webster, 2004), the Closeout Report Action Memorandum (TtEC, 2006), the Project Memorandum, re: Results of December 2006 Sampling Event (TtEC, 2008c), the Closeout Report

for East Mat Ditch Spot Excavation (TtEC, 2008b), and the Technical Memorandum for AOC 60 (TtNUS, 2008). See also the Appendix B list of references. These investigations are summarized below in chronological order.

Phase I EBS - 1995

In 1995, the Navy performed a Phase I EBS (Stone & Webster, 1996) to assess the environmental condition of the Base property. Areas that were believed to require further investigation for potential contamination were designated as Review Item Areas (RIAs). The Phase I EBS identified RIA 60 to be associated with the disposal of drums and known spills. During visual surveys, 55-gallon drums and solid waste were observed to be partially or fully submerged in the East Mat Ditch. Site interviews indicated that waste was commonly disposed in the ditch and that rusted drums had been removed from the East Mat drainage ditch in the past. The abutting East Mat area had reportedly been a waste disposal storage location for many years.

Phase II EBS - 1998

The Navy conducted a Phase II EBS investigation to evaluate the RIAs identified during the Phase I EBS. The RIAs were investigated as separate sites during the Phase II EBS and each RIA was sampled for potential contaminants. Sampling at RIA 60 was conducted during October and November 1998. The results of the Phase II EBS investigation, including the comparisons of the analytical results to screening benchmarks and background values, were presented in Decision Documents for each RIA. Phase II EBS results for RIA 60 were included in the *Draft Phase II EBS Decision Document for RIA 60* (Stone & Webster, 2000b).

Surface water and sediment samples were collected in October and November 1998 from the EMD. The sampling results (with maximum detected values), which were compared to ecological benchmarks, are provided below.

- *Volatile Organic Compounds (VOCs)*—VOCs were not detected in surface water samples above benchmark screening levels. One VOC in sediment, acetone (0.082 J mg/kg), exceeded benchmark screening levels and was retained as a contaminant of potential concern (COPC).

- *Semivolatile Organic Compounds (SVOCs)*—SVOCs were not detected in surface water samples. Several SVOCs were detected in all of the sediment samples at concentrations below screening benchmarks or background, if applicable. One SVOC, a PAH, 1,2-benzophenanthracene (2.6 J mg/kg), exceeded benchmark screening levels (it did not have an applicable background level) and was retained as a COPC.

- *Pesticides* —One pesticide was detected in one surface water sample below benchmark screening levels. Six pesticides [4,4'-DDD (0.29 J mg/kg), 4,4'-DDE (0.057 mg/kg), 4,4'-DDT (0.24 J mg/kg), alpha-chlordane (0.022 mg/kg), endosulfan sulfate (0.04 J mg/kg), and gamma-chlordane (0.017 mg/kg)] were detected in sediment at concentrations exceeding applicable benchmark values and were retained as COPCs.

- *Polychlorinated biphenyls (PCBs)* —PCBs were not detected in surface water. One PCB, Aroclor-1260 (1.1 J mg/kg), was detected in sediment at concentrations exceeding applicable benchmark values and was retained as a COPC.

- *Inorganics* —Several inorganics (metals) were detected at AOC 60. Two metals [aluminum (946 µg/L) and lead (24.3 µg/L)] exceeded background and benchmark screening levels in surface water. Three

metals [barium (647 J mg/kg), cadmium (3.2 mg/kg), and mercury (0.33 J mg/kg)] exceeded background and benchmark screening levels in sediment. The five metals were retained as COPCs.

Phase II Supplemental Investigation – 2000

As a result of a data review performed at the start of the ecological risk assessment effort for the Base, it was determined that the data collected in 1998 was not sufficient for risk assessment purposes. Specifically, dissolved metals data for surface water are preferred for ecological risk assessment, but these data were not collected in 1998. For sediment, it is desirable to have acid volatile sulfide/simultaneously extracted metals (AVS/SEM) and grain size analyses conducted for ecological risk assessment purposes, but these analyses were not conducted in 1998. In addition, due to high percent moisture in the sediment, the detection limits in many of the 1998 sediment samples were orders of magnitude higher than the detection limits identified as Data Quality Objectives in the Quality Assurance Project Plan.

On January 19 and 20, 2000, resampling was conducted at RIA 60 in accordance with the *Phase II Environmental Baseline Survey Sampling Work Plan Addendum No. 1,* Final, Rev. 1, dated November 12, 1999 (Stone & Webster, 1999). Sediment was resampled at the same locations as in 1998, and analyzed for the same parameters, with the addition of AVS/SEM and grain size. Surface water was resampled at the same locations as in 1998, and analyzed for total metals, dissolved metals, and hardness (Figure 2-2).

Supplemental Sampling – 2003

In May 2003, the Navy produced a draft streamlined ecological risk assessment (ERA) using the samples collected at RIA 60 in 1998 and 2000. EPA and MassDEP comments received on draft ERA requested further explanation of the discrepancy between the method 8310 and method 8270 results for PAHs in some sediment samples that was discussed in the ERA. The Navy proposed that additional samples be collected at the location of the major discrepancy (SD11-138R). Three sediment samples were collected in July 2003, and analyzed for PCBs, SVOCs (method 8270), and PAHs (method 8270SIM (currently used in place of method 8310)). EPA and MassDEP requested that the three sediment samples be collected 5 to 10 feet away from former sample SD11-138R. The samples were collected at the location of former sample SD11-138R (new SD11-351), 6 feet upstream (SD11-350), and 14 feet downstream (SD11-352). These data were not used in the ERA due to discrepancies in the PAH results and the inclusion of the sampling locations in the planned removal action which thereby removed any COPCs.

At NAS South Weymouth, RIAs with sampling data that exceed either risk benchmarks or background values for more than one hazardous substance were designated as AOCs to be addressed under CERCLA. Accordingly, RIA 60 became AOC 60. AOC 60 is 1 of 17 CERCLA AOCs currently identified at NAS South Weymouth. The Navy conducted either streamlined risk assessments or removal actions at the various AOCs at NAS South Weymouth. At AOC 60, the Navy conducted a streamlined ecological risk assessment and a human health evaluation.

Streamlined ERA and Human Health Evaluation

In 2003, the Navy used the sample results from the Phase II EBS and supplemental investigations to calculate potential risks to ecological receptors at AOC 60 (Stone & Webster, 2004) (Tables 2-2 and 2-3). Based on comments from MassDEP, a human health evaluation was also completed and included as an appendix in the streamlined ERA. The results of the risk assessments are presented in Section VII, Summary of Potential Site Risks. The findings indicated that average concentrations of Aroclor-1260 and PAHs in sediment resulted in unacceptable risk to aquatic life. Maximum concentrations of PAHs were found in one sample, SD11-138R. An evaluation of risk assuming the removal of sediment from sample location SD11-138R determined that the risk would be reduced to acceptable levels. The human health

evaluation determined that there were no concerns for adverse human health impacts resulting from residential exposures to surface water or sediment at AOC 60.

Hot Spot Excavations – 2004

A 'time critical' removal action was conducted at two hot spot locations (SD11-136R and SD11-138R) on the East Mat Ditch in January 2004. Sample location SD11-136R was excavated at the request of MassDEP due to concerns regarding the levels of PAHs at that location. The removal action involved sediment excavation, confirmatory sampling, material staging, waste characterization sampling, and off-site disposal. The clean up goals were the established base background levels or 95% upper predictive limit (UPL) values (Stone & Webster, 2004). Sediment results were also compared to human health risk based criteria, ecological risk based criteria, and MassDEP threshold effects concentration (TEC) sediment values. Sediment removal was conducted with an excavator and loader. Excavation areas extended 10 feet upstream and 10 feet downstream at each hot spot location. The overall depth of the excavation was 2 feet. Five confirmatory samples were collected from each hot spot excavation (one at either end of the excavation, one at the base of the excavation, and one from either sidewall) (Figure 2-3). Samples were analyzed for PAHs and Target Analyte List (TAL) metals. A total of 63.42 tons of material was excavated and transported off site.

A risk evaluation was conducted on the confirmation sample analytical results. In the sediment samples, concentrations of aluminum, antimony, beryllium, chromium, magnesium, and silver exceeded the site background sediment concentrations. The risk evaluation concluded that there was no concern for human health or ecological risk from the concentrations detected in the confirmation samples (TtEC, 2006).

December 2006 Sampling Event

Nineteen sediment samples were collected from portions of the East Mat Ditch on December 12 and 13, 2006 (Figure 2-4). The objective of the sampling was to assess if contaminated sediment existed within the areas of the East Mat Ditch where there were insufficient data. Samples were collected from 2,500 linear feet at 100-foot intervals and at a depth of 0 to 1 feet below ground surface (bgs). Samples were analyzed for VOCs, SVOCs, pesticides, PCBs, herbicides, and TAL metals. Analytical results were compared to Massachusetts Contingency Plan (MCP) S-1 reportable concentration (RC) standards and basewide background concentrations.

When the analytical data from the nineteen samples collected from the East Mat Ditch were screened against the applicable MassDEP criteria, there were exceedances at five locations. One sample (ESD-1200-SB-09) and its duplicate sample (ESD-1200-SB-09-D) had PAH exceedances. The five PAH exceedances (maximum concentrations in parentheses) were: benzo(a)anthracene (8,400 µg/kg), chrysene (8,110 µg/kg), benzo(b)fluoranthene (11,100 µg/kg), benzo(a)pyrene (6,450 µg/kg) and dibenzo(a,h)anthracene (835 µg/kg). Beryllium exceedances were found at four locations (ESD-1700-SB-14, ESD-2500-SB-16, ESD-2600-SB-17 and ESD-2700-SB18).

Spot Excavations – 2007

In November and December 2007, two excavations were conducted at the former sample location ESD-1200-SB-09 due to the presence of elevated PAH concentrations (Figure 2-5). Between November 1 and 2, 2007, approximately 150 linear feet of the East Mat Ditch were excavated to a depth of 1 foot bgs (TtEC, 2008b). Excavation began 75 feet west of sample location ESD-1200-SB-09, ending at twin 3-foot diameter culverts. The excavation extended north and south to the original limits of the ditch, as evidenced by the change of material observed. Three confirmation samples (C-EMD-SB-01 through C-EMD-SB-03) were collected and analyzed for SVOCs, using EPA Method 8270C. Analytical results were compared to EPA Region 9 Preliminary Remediation Goals (PRGs), MCP S-1 criteria, National

Oceanographic and Atmospheric Adminstration (NOAA) Effects Range-Low (ER-L) screening benchmarks, and Phase II sediment ecological benchmarks. As a conservative approach, analytes were designated as exceeding the criteria if the detection limit was higher than the criteria concentration, even if they were not detected at the particular detection limit. One SVOC (phenol) in sample C-EMD-SB-03 had a detection limit higher than the MCP S-1 criteria (1,000 ppb). In addition, 10 PAHs were detected in sample C-EMD-SB-03; 4 of the PAH concentrations exceeded PRG criteria.

A second excavation was conducted at location C-EMD-SB-03 due to exceedances of the EPA Region 9 PRGs. On December 11, 2007, 30 linear feet of additional excavation was completed to a depth of 1 foot bgs at location C-EMD-SB-03 within the previously cleared initial excavation footprint. The excavation limits were 25 feet upstream and 5 feet downstream, due to the presence of culverts. Three confirmatory samples were collected; one sample at the former location of C-EMD-SB-03 and two at each end of the excavation footprint (Figure 2-5). Samples were analyzed for PAHS by EPA Method 8270 SIM, to achieve lower detection limits. Although analytical results indicated only two PAHs (benzo(a)pyrene and dibenzo(a,h)anthracene) exceeded PRG criteria, none exceeded the MCP S-1 standards.

AOC 60 Technical Memorandum - 2008

The Navy prepared a Technical Memorandum which compiled the various data sets that represent current site conditions at AOC 60 and screened these data against applicable basewide background levels and ecological and human health benchmarks. The technical memorandum incorporated a dataset comprising of analytical data from five sampling events. The results of the Technical Memorandum are presented in Section VII, Summary of Potential Site Risks.

C. History of CERCLA Enforcement Activities

In May 1994, NAS South Weymouth was listed on the EPA NPL, indicating that the NAS South Weymouth property was a priority for environmental investigation and cleanup. The Navy has conducted environmental studies and activities at NAS South Weymouth in accordance with CERCLA and the NCP. Based on the designation of NAS South Weymouth property as an NPL site, a Federal Facility Agreement was executed by the Navy and EPA, which became effective in April 2000. This agreement establishes the Navy as the lead agency for the investigation and cleanup of designated sites within NAS South Weymouth property, with EPA providing oversight. MassDEP is not a party to the Federal Facility Agreement. In accordance with CERCLA and the NCP, MassDEP has participated in ongoing discussions and strategy sessions, and provides oversight and guidance through their review of the Navy's Installation Restoration (IR) Program documents.

III. COMMUNITY PARTICIPATION

The Navy has worked to keep the community involved throughout the investigation process. The Navy has informed the community and other interested parties of NAS South Weymouth environmental activities through informational meetings, fact sheets, press releases, public meetings, regular contact with local officials, and a public website. Also, the Navy meets on a regular basis to discuss the status and progress of the environmental programs with the Restoration Advisory Board (RAB), which is comprised of community leaders, government agency representatives, and local citizens who gather to discuss the progress of the environmental programs at NAS South Weymouth. Representatives from the Navy, EPA Region 1, MassDEP, and local government have attended the public meetings and hearings. The following is a brief chronology of public outreach efforts for AOC 60:

- In September 1995, the Navy initiated a series of public meetings, at which the RAB process was explained and community members were asked to join the RAB. A sufficient number of

volunteers assembled, and RAB meetings began in March 1996. Since that time, RAB meetings generally have been held on a monthly or bi-monthly basis to keep the RAB and local community informed of the progress of the environmental investigations. The Navy has prepared and distributed minutes from each of the RAB meetings. Meeting minutes are available to the public on the Navy's public website for environmental activities at the former NAS South Weymouth.

- In March 1996, the EPA awarded the North and South Rivers Watershed Association (NSRWA) a Technical Advisory Grant (TAG). This TAG had allowed the NSRWA to hire a Technical Advisor to review documents, attend meetings, and prepare evaluation reports. The Technical Advisor attended most RAB meetings and technical project meetings when the TAG was active.

- In July 1998, the Navy released a community relations plan that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities.

- In May 1999, the DoD gave the RAB for NAS South Weymouth a Technical Assistance for Public Participation (TAPP) grant. This grant allowed the RAB to obtain technical assistance from experts in the environmental field to help them understand the environmental cleanup programs at the Base.

- The Navy has distributed technical documents directly to the RAB members, including the EBS Decision Documents and field reports. Technical documents are also available at the information repositories listed below.

- The Navy provided periodic updates on the status of the Site during various public RAB meetings.

- The Navy published a legal notice of the Proposed Plan for AOC 60 in the Patriot Ledger (October 1, 2008), the Abington-Rockland Mariner (October 3, 2008), and the Weymouth News (October 1, 2008). The notice announced the public comment period and the meeting date for the public information session and public hearing. The Navy distributed copies of the Proposed Plan to a mailing list of nearly 350 community members. In addition, the Navy made the Proposed Plan available to the public at several established Information Repositories (listed below) and the Navy's public website for environmental activities at the former NAS South Weymouth.

- From October 1, 2008 to October 31, 2008, the Navy offered the Proposed Plan for public comment, in accordance with the requirements of the NCP and the CERCLA program at NAS South Weymouth. Comments received regarding AOC 60 during the public comment period are included in Appendix E.2.

- On October 16, 2008, the Navy held an informational meeting to present the Navy's Proposed Plan to the public. At this meeting, representatives from the Navy discussed the Proposed Plan and answered questions from the public. In addition, the Navy held a public hearing to accept oral comments on the Proposed Plan. A transcript of comments received at the public hearing is included as Appendix E.1.

- Responses to comments received at the public hearing and during the public comment period on the Proposed Plan are included in the Responsiveness Summary that is Part 3 of this ROD.

In addition, the Navy has provided an index of the Administrative Record available for public review at several locations. Information repositories have been established at the Tufts Library in Weymouth, Massachusetts; the Abington Public Library in Abington, Massachusetts; the Hingham Public Library in Hingham, Massachusetts; the Rockland Memorial Library in Rockland, Massachusetts; and the Navy's

CSO at NAS South Weymouth, Weymouth, Massachusetts. The Administrative Record Index is included as Appendix D to this ROD.

IV. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION

In addition to several CERCLA Operable Units, AOC 60 is 1 of 17 CERCLA AOCs identified at NAS South Weymouth (Table 2-1). In general, the Operable Units and AOCs at NAS South Weymouth progress through the CERCLA cleanup process independent of one another.

AOC 60 was originally identified in the Phase I EBS Report as RIA 60. An RIA is an area identified during the EBS that was believed to require further evaluation due to the potential for contamination. If environmental impacts were found from sampling results, then the Navy addressed an RIA under the appropriate program. At NAS South Weymouth, the Navy designated EBS RIAs as CERCLA AOCs when one or more CERCLA hazardous substances were present in excess of human health or ecological risk benchmarks and background values. The Navy then conducted either streamlined risk assessments or removal actions at the various AOCs. At AOC 60, the Navy conducted a streamlined ecological risk assessment and human health evaluation followed by completion of removal actions. The results of the removal actions indicated that no unacceptable risks to human health or the environment remained at AOC 60.

The ROD for AOC 60 is one component of the Superfund program at NAS South Weymouth. AOC 60 has proceeded on an independent track from the other Operable Units and AOCs to enable the Navy to expedite site closure and property transfer. The signing of this ROD by the Navy and EPA Region 1 indicates the completion of the Superfund process for AOC 60. No additional actions or investigations of AOC 60 are required under CERCLA. The selected No Further Action decision for AOC 60 is not expected to have an impact on the strategy or progress for the remaining environmental investigation sites at NAS South Weymouth. Additional details on the strategy and schedule for the remediation of the other Operable Units and a schedule for AOC activities at NAS South Weymouth are available in the Navy's Site Management Plan (Tetra Tech NUS, 2007).

V. SITE CHARACTERISTICS

AOC 60 comprises the majority of the EMD located at the former NAS South Weymouth, Massachusetts (Figure 2-1). Not included in AOC 60 are approximately 200 feet of the western portion of the EMD which were investigated as part of AOC 61 (TACAN Outfall and Associated Areas). The East Mat is a semi-circular, 50-acre area located in the east-central portion of NAS South Weymouth. The ditch provided drainage from the East Mat and the surrounding areas.

The primary use of the East Mat was as a mooring area for lighter-than-air aircraft, aircraft fuel discharge area, aircraft de-arming area, and as a taxiway and parking area for aircraft. According to personnel interviewed for the Phase I EBS, during the 1950s through the 1970s, aircraft fuel tanks were drained directly into the drainage ditches surrounding the East Mat. Other unspecified materials were likely to have also been disposed of in the drainage ditch.

Currently, the East Mat is paved with asphalt; however, large sections are cracked and severely weathered. The rest of the surrounding area along the ditch consists of wooded areas and wetlands. The East Mat ditch varies in width from 5 feet to 20 feet, and in depth from 3 inches to 16 inches. Parts of the ditch are culverted underground.

Visual surveys of AOC 60 conducted during the Phase I EBS (Stone & Webster, 1996) identified discolored water and solid waste in the EMD, including a 55-gallon drum. Personnel interviewed for the

Phase I EBS reported that material had been disposed of in the EMD and that, during the 1950s through 1970s, aircraft fuel tanks were drained directly into the EMD. Accordingly, the EMD was identified for further investigation as EBS RIA 60. The Navy has since removed the drum and other solid wastes from the EMD.

The Phase II EBS for RIA 60 (Stone & Webster, 2000) was completed in 1998 and included the collection of sediment and surface water samples from the EMD. VOCs, SVOCs, pesticides, PCBs, and inorganics were detected in the samples. The results were compared to ecological benchmarks and basewide background concentrations. Compounds that exceeded both ecological benchmarks and background levels were identified as COPCs. Based on these results, the Site was designated as a CERCLA AOC. The 1998 data set was determined to be insufficient for the ERA. Therefore, the Navy conducted a supplemental sampling event in 2000 at the same locations in order to obtain analytical data sufficient for conducting a streamlined ERA for AOC 60.

A streamlined ERA and a human health evaluation were completed for the Site. The Conceptual Site Model (CSM) for the ecological risk assessment as well as the results of the risk assessments are presented in Section VII, Summary of Potential Site Risks. The findings of the Navy's streamlined ERA from 2004 indicated that a removal action was necessary to address the risk to ecological receptors in sediment in the ditch. Review of data collected following the removal actions completed in 2004 and 2007 indicated that there are no remaining unacceptable risks to human health or the environment at AOC 60.

VI. CURRENT AND POTENTIAL FUTURE SITE RESOURCE USES

NAS South Weymouth was operationally closed on September 30, 1996, and was administratively closed on September 30, 1997. As such, historical operations conducted at the Base are no longer occurring. The Base is located within a residential/light commercial area.

Under current use of the former NAS South Weymouth, there are no regular activities occurring at AOC 60 and, thus, there is limited potential for current worker exposure. Human activity is limited to possible brush clearing during summer months.

The anticipated future use of the AOC 60 property is based on the zoning prescribed in the *Zoning and Land Use By-Laws for the Naval Air Station South Weymouth* (SSTTDC, 2005a), which has been approved by the Towns of Weymouth, Abington, and Rockland. AOC 60 is zoned as part of a recreation district in the approved reuse plan. Recreation District zoning is intended for passive and active indoor and outdoor recreation uses (SSTTDC, 2005a). The area immediately north of AOC 60 is zoned as open space. The open space zoning is intended for the preservation of large, contiguous wetland areas and open space for park land, active and passive recreation, reservations, community gardens, rivers and streams, and similar uses. The open space zoning district may also encompass wetland resource areas, open space, and recreational areas where there are important public health, safety, and welfare interests in watershed and flood potential protection, preservation of wildlife habitat, and conservation of recreational land for resident use and enjoyment (SSTTDC, 2005a). No residential use is permitted in open space zoning districts.

Groundwater at AOC 60 is not within a state-mapped, potentially productive aquifer zone, interim wellhead protection area (IWHPA), or Zone II area. Therefore, groundwater at AOC 60 is not considered to be part of a Potential Drinking Water Source Area.

VII. SUMMARY OF POTENTIAL SITE RISKS

As discussed in Section II B, AOC 60 originally was identified in the Phase I EBS Report as RIA 60 as an

area requiring further evaluation due to the potential for contamination (i.e., waste disposal practices). Under the Phase II EBS, sediment and surface water samples were collected and analyzed for a wide range of contaminants. The validated results were screened against background values for NAS South Weymouth, human health risk-based benchmarks, and ecological risk-based benchmarks. The screening indicated potential risks to health and the environment at AOC 60 associated with VOCs, SVOCs, pesticides, PCBs, and metals.

The Navy performed a streamlined ecological risk assessment and a human health evaluation in 2003 to estimate the probability and magnitude of potential adverse environmental (ecological) and human health effects from exposure to the site related contaminants assuming no remedial action was taken. Should unacceptable risks be determined, then these assessments would provide the basis for taking action and would identify the contaminants and exposure pathways that needed to be addressed by the remedial action. The streamlined ecological risk assessment (ERA) and the human health evaluation are summarized in Sections A and B below.

In 2008 the Navy prepared a Technical Memorandum which compiled the various data sets that represent current site conditions at AOC 60 and screened these data against applicable basewide background levels and ecological and human health benchmarks. The technical memorandum incorporated a dataset comprising of analytical data from five sampling events. The findings and conclusions of the technical memorandum are summarized in Section C below.

A. Ecological Risk Assessment

In 2003, the Navy completed a streamlined ERA for the Site (Stone & Webster, 2004). Ecological COPCs were based on exceedances of benchmark screening values. The following COPCs were identified in the streamlined ERA (maximum detected concentrations are shown in parentheses):

- Sediment – acetone (260 µg/kg), acenaphthene (7200 µg/kg), anthracene (14,000 µg/kg), benzo(a)anthracene (22,000 µg/kg), benzo(a)pyrene (16,000 µg/kg), benzo(b)fluoranthene (21,000 µg/kg), benzo(g,h,i)perylene (8,900 µg/kg), benzo(k)fluranthene (5,800 µg/kg), carbazole (2,800 µg/kg), chrysene (19,000 µg/kg), dibenzofuran (3,200 µg/kg), dibenzo(a,h)anthracene (2,400 µg/kg), fluoranthene (35,000 µg/kg), fluorene (6,900 µg/kg), indeno(1,2,3-cd)pyrene (9,800 µg/kg), 2-methylnaphthalene (830 µg/kg), 4-methylphenol (720 µg/kg), naphthalene (590 µg/kg), pentachlorophenol (220 µg/kg), phenanthrene (46,000 µg/kg), pyrene (72,000 µg/kg), Total PAH (286,690 µg/kg), aldrin (3.8 µg/kg), beta-BHC (7.6 µg/kg), alpha-Chlordane (38 µg/kg), gamma-Chlordane (35 µg/kg), 4,4'-DDE (39 µg/kg), 4,4'-DDD µg/kg (140 µg/kg), 4,4'-DDT (48 µg/kg), endosulfan I (43 µg/kg), heptachlor epoxide (25 µg/kg), Aroclor-1260 (590 µg/kg), aluminum (11,600 mg/kg), barium (196 mg/kg), beryllium (1.2 mg/kg), cadmium (2.4 mg/kg), chromium (28.4 mg/kg), copper (41.1 mg/kg), lead (272 mg/kg), mercury (0.32 mg/kg), vanadium (47.9 mg/kg), and zinc (223 mg/kg).

- Surface Water – benzo(a)anthracene (0.07 µg/L), benzo(a)pyrene (0.05 µg/L), benzo(g,h,i)perylene (0.08 µg/L), dibenzo(a,h)anthracene (0.46 µg/L), indeno(1,2,3-cd)pyrene (0.06 µg/L), Total PAHs (0.67 µg/L), and aluminum (107.85 µg/L).

The following receptor groups were evaluated in the ERA:

- Wetland Plants
- Aquatic Life (including invertebrates, plants, and amphibians)
- Wetlands Vertebrate Wildlife

The ecological exposure pathways evaluated included direct exposure to sediment for wetland plants, direct exposure to surface water and sediment for aquatic life, and ingestion of sediment and ingestion of food items that may contain accumulated chemicals from the sediment/hydric soil by wetland vertebrate wildlife. The exposure pathways and measurement and assessment endpoints used in the ecological risk assessment are presented in Table 2-5. The star-nosed mole, Carolina wren, and belted kingfisher were selected as representative wildlife species for evaluation at AOC 60. The ecological risk assessment conceptual site model is depicted in Figure 2-7.

The results from the risk analysis portion of the ERA were used to determine the probability of adverse effects to the ecological receptors at the Site. The ERA results are based on an interpretation of the overall weight of evidence collected from the Site.

The results showed that the average concentrations of Aroclor-1260 and PAHs in sediment resulted in a risk to aquatic life. The maximum concentrations of PAHs were found in one sample, SD11-138R. The Navy directed Stone & Webster to evaluate risk assuming sample SD11-138R was removed, to determine if remediation of the sediment at this location would reduce risk to acceptable levels.

The Navy's analysis showed that substantial risk reduction could be obtained by conducting a spot removal of sediment at sample location SD11-138R. While not supported by the results of this risk assessment, in response to MassDEP's concern, the Navy also recommended spot removal of sediment at sample location SD11-136R.

B. Human Health Evaluation

In response to MassDEP comments on the June 2003 Revised Draft AOC 60 Streamlined Ecological Risk Assessment, the results from the surface water (unfiltered) and sediment sampling along the East Mat Ditch were compared against EBS human health benchmarks and base background values. This human health evaluation was included as Appendix G in the streamlined ERA (Stone & Webster, 2004).

All of the surface water and sediment data were used for this comparison, with the exception of sediment sample SD11-138R.

Surface water and sediment data from the East Mat Ditch (EMD) were compared to EBS human health benchmarks and base background values. The only COPC identified in surface water was dibenzo(a,h)anthracene. The human health evaluation concluded that potential risks associated with exposures to surface water in the East Mat are within EPA's acceptable risk range and meet MassDEP benchmarks (Stone & Webster, 2004).

Concentrations of benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, arochlor-1260, aluminum, and beryllium were identified as COPCs in sediment. The human health evaluation noted that no unacceptable risks are posed under EPA guidelines and cumulative risks appeared to fall below MassDEP's risk target.

The human health evaluation concluded that there are no concerns for adverse human health impacts resulting from residential exposures to surface water or sediment at the Site.

C. AOC 60 Technical Memorandum - 2008

The Navy prepared a Technical Memorandum which compiled the various data sets that represent current site conditions at AOC 60 and screened these data against applicable basewide background levels and ecological and human health benchmarks. The technical memorandum incorporated a dataset comprised of analytical data from five sampling events. Sample locations are depicted on Figure 2-6.

The current conditions data set, which includes sediment data from five sampling events and surface water data from one event, is shown in Table 2-4A through Table 2-4F. Data from sampling locations that were excavated as part of previous removal actions were not included in the dataset representing current conditions. The current-conditions dataset is comprised of the following five datasets:

- The first dataset consists of six sediment samples collected in January 2000 for the streamlined ERA (Stone & Webster, 2004). These samples included SD11-137R and SD11-139R through SD11-143R. Samples were analyzed for VOCs, SVOCs (EPA Method 8310), PAHs (EPA Method 8270SIM), pesticides, PCBs, and metals.

- The second dataset consists of 10 confirmatory samples (AOC60C-SD-01 through AOC60C-SD-10) collected during the January 2004 removal action at sample locations SD11-138R and SD11-136R. The confirmatory samples were analyzed for PAHs (EPA Method 8270C SIM) and target analyte list (TAL) metals (EPA Method 6010B ICP) (TtEC, 2006).

- The third dataset includes 19 sediment samples collected in December 2006 along a 2,500 foot stretch of the EMD which was not previously sampled. Samples were collected at locations spaced 100 feet apart along the EMD and were analyzed for VOCs (EPA Method 8260B), SVOCs (EPA Method 8270C), PCBs (EPA Method 8082), pesticides (EPA Method 8081A), herbicides (EPA Method 8151A), and metals (EPA Method 6010B). Samples included ESD-400-SB-01 through ESD-2800-SB-19 (TtEC, 2007a).

- The fourth dataset includes confirmatory samples collected in November and December 2007 as part of the removal action at location ESD-1200-SB-09. The samples were analyzed for SVOCs (EPA Method 8270C). Samples included C-EMD-SB-04 though C-EMD-SB-06. Samples ESD-1200-SB-09 and EMD-SB-01 through -03 were not included in the current-conditions dataset because they were removed during a subsequent excavation round.

- The fifth dataset includes sediment and surface water samples collected in the EMD as part of the Solvent Release Area (SRA) Remedial Investigation (RI) conducted in January 2007. Samples were analyzed for VOCs (EPA Method 8260B), SVOCs (EPA Method 8270C), PAHs (EPA Method 8270C SIM), pesticides (EPA Method 8081A), PCBs (EPA Method 8082), and metals (EPA Method 6020B). Sediment samples included SRA-SD-105 and SRA-SD-109 through SRA-SD-112. Surface water samples included SRA-SW-105 and SRA-SW-109 through SRA-SW-112. Sample locations SRA-SD/SW-101 through SRA-SD/SW-104, and SRA-SD/SW-106 through SRA-SD/SW-108 were not evaluated in this Technical Memorandum because they were not located within the AOC 60 area.

The above-mentioned sediment sampling data representing current site conditions (e.g., following the AOC 60 removal actions) were compared to the available basewide background levels. Those results exceeding background levels for PAHs and inorganics were then compared to EBS benchmarks as a further screening step for potential risk concerns. VOC and pesticide/PCB sampling data were compared to EBS benchmarks.

The findings of the dataset comparison included the following: four PAHs (benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene) exceeded background levels and screening benchmarks; three VOCs (acetone, carbon disulfide, and m&p xylene) exceeded screening benchmarks; several pesticides (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-BHC, alpha-chlordane, dieldrin, endosulfan I, endosulfan sulfate, endrin aldehyde, endrin ketone, gamma-chlordane, and heptachlor epoxide), and one PCB (Aroclor-1260), exceeded screening benchmarks; and four pesticides and Aroclor-1260 exceeded background levels. In addition, ten inorganics (aluminum, antimony, barium,

cadmium, copper, iron, lead, mercury, selenium, and vanadium) exceeded background levels and screening benchmarks.

The exceedances documented by the technical memorandum were not found to be risk concerns based on the presentation of several factors. These factors included the limited frequency of occurrence of contaminants, the lack of exceedances of MCP S-1/GW-1 standards, the lack of anticipated additive toxicological effects of contaminants, the essential nutrient classification of elements, the small size and limited ecological habitat of the drainage ditch, and a determination of limited bioavailability of contaminants.

The memorandum concluded there are no identified risk concerns associated with the dataset representing current site conditions. Therefore, the Navy concluded that the removal actions successfully mitigated potential risks associated with past disposals to the EMD and that a NFA recommendation is appropriate for AOC 60.

D. Summary

In summary, the streamlined ERA identified ecological risks (i.e., risks to the environment) associated with one sample location, SD11-138R. A re-evaluation of risk assuming completion of a removal action at SD11-138R found the ecological risk at AOC 60 to be acceptable. The Human Health Evaluation concluded that potential risks were within or below applicable risk ranges. Based on the results of the Streamlined ERA and the Human Health Evaluation (Stone & Webster, 2004), the Navy performed the removal actions described in Section II B (Hot Spot Excavations-2004).

The removal actions at AOC 60 have successfully mitigated the ecological risks described above. A Technical Memorandum completed in 2008 compared current site conditions to basewide background levels and EBS benchmarks. The memorandum concluded that there were no identified risk concerns associated with the dataset representing current site conditions.

Therefore, the Navy and EPA have concluded that the AOC 60 site does not pose an unacceptable risk to human health or the environment. Sediment and surface water conditions at AOC 60 are acceptable for unrestricted use (including residential). The current reuse plan (SSTTDC, 2005) indicates that the AOC 60 area is zoned for recreational use. No additional measures are required at AOC 60 to ensure protection of human health and the environment under the current or anticipated future uses.

VIII. DOCUMENTATION OF NO SIGNIFICANT CHANGES

The Navy issued a Proposed Plan for No Further Action for AOC 60 on October 1, 2008 for a 30-day public comment period. A public information session and a public hearing were held on October 16, 2008. The Navy reviewed the comments submitted during the public comment period and at the public hearing (Appendix E). As summarized in the Responsiveness Summary (Part 3, pending), it was determined that no significant changes to the decision, as originally identified in the Proposed Plan, were necessary. Therefore, No Further Action for AOC 60 will be implemented.

IX. STATE ROLE

MassDEP has reviewed the relevant site information to determine if the selected decision is in compliance with applicable or relevant and appropriate state environmental and facility siting laws and regulations. MassDEP's statement on the selected decision in this ROD is presented in Appendix A.

TABLE 2-1

**SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 4**

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of October 2008
West Gate Landfill	IR Program Site 1	1	WGL	Disposal area used for a variety of construction and demolition debris, municipal, and other waste materials.	PA, SI, RI, FS, PRAP, and ROD (including construction of a soil cover over the landfill, long-term monitoring, and institutional controls) completed.
Rubble Disposal Area (Upland)	IR Program Site 2	2	RDA	Disposal area used for primarily building demolition debris.	PA, SI, RI, FS, PRAP, ROD, Remedial Design, Remedial Action (including excavation and offsite disposal of PCB-impacted material, construction of a soil cap for the landfill material) completed. Implementation of institutional controls pending. Long-term monitoring is underway.
Small Landfill	IR Program Site 3	3	SL	Disposal area used primarily for concrete, metal, and wood.	PA, SI, RI, PRAP, and ROD (No Action with groundwater monitoring) completed. Monitoring program completed. Closure under MA Solid Waste Regulations is underway.
Fire Fighting Training Area	IR Program Site 4	4	FFTA	Area designated for dispensing fuels for igniting and extinguishing fires.	PA, SI, and RI completed. No FS required. Completed PRAP and No Action ROD. Further assessment in accordance with the MCP (310 CMR 40.0000) completed. Site closed out under the MCP.
Tile Leach Field	IR Program Site 5	5	TLF	Sand bed used to receive and distribute treated industrial wastewater.	PA, SI, and RI completed. No FS required. PRAP and No Action ROD completed.
Fuel Farm	IR Program Site 6	Not applicable (no longer CERCLA)	None	Tank farm and fuel dispensing area.	Site was transferred into the MCP program based on exhibiting only fuel-related issues. Site closed out under the MCP.
Sewage Treatment Plant	IR Program Site 7	7	STP	Wastewater treatment plant used primarily for domestic wastewater.	PA, SI, RI, FS, PRAP, ROD, and pre-design investigation completed. Remedial design/remedial action pending.
Abandoned Bladder Tank Fuel Storage Area	IR Program Site 8	8	ABTFSA	Area in which aboveground tanks temporarily were stored in support of aircraft refueling training operations.	Closed. PA, SI, and RI completed. No FS necessary. Completed No Action PRAP and ROD.
Rubble Disposal Area	IR Program Site 2	9	RDA	Steep sloping area adjacent to the RDA.	Combined with Operable Unit 2. No separate actions being performed.

TABLE 2-1

**SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 4**

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of October 2008
Building 81	IR Program Site 9	10	None	Release of solvents from former motor pool.	Former MCP site moved to CERCLA program. Conducted *in situ* chemical oxidation pilot study for groundwater. RI sampling completed. Draft RI report issued.
Building 82	IR Program Site 10	11	None	Release of solvents from former aircraft hangar operations.	Former MCP site moved to CERCLA program. RI sampling completed. Draft RI report issued.
Solvent Release Area	IR Program Site 11	12	SRA	Release of solvents from unidentified source.	Former EBS background location moved to the CERCLA Program. Draft RI report issued.
Hangar 1 Main Bay	AOC Hangar 1	None	None	Main building floor drains	Various Removal Action/TCRAs completed. Preparing PRAP.
Suspected TACAN Disposal Area	AOC 3	None	None	Pile of rubble, soil, and metal debris containing PAHs and polychlorinated biphenyls (PCBs).	EBS Phase I, EBS Phase II. TCRA completed in Fall 2001 for the removal of 51 tons of soil and debris. PRAP completed. Completed No Further Action ROD.
ATC abandoned septic system	AOC 4A	None	None	Alleged liquid and solid waste disposal to a septic system. Arsenic in adjacent forested wetland hydric soil (sediment) was detected at levels above background.	EBS Phase I, EBS Phase II. Conducted streamlined HHRA and ERA. Completed No Action PRAP and ROD.
Wyoming St. Area – Building 70	AOC 8	None	None	Remnants of Building 70 demolition. Building housed radar electronics. Elevated PCB concentrations in soil.	EBS Phase I, EBS Phase II. TCRA, and CRAM completed. Completed No Further Action PRAP and ROD.
Supply Warehouse	AOC 13	None	None	Former railroad loading and unloading area. PAHs and pesticides in soil.	EBS Phase I, EBS Phase II. Conducted HHRA on soil. Removal action completed in September 2001 (8 tons of soil containing PAHs removed). PRAP completed. Completed No Further Action ROD.
Water Tower Staining	AOC 14	None	None	Staining between Hortensphere and Water Tower. Former drum storage area. Chromium, lead, and PAHs in soil.	EBS Phase I, Phase II. Conducted HHRA. PRAP in progress.
Water Tower	AOC 15	None	None	Possible lead paint in soil (paint chips from sandblasting of tower).	EBS Phase I, EBS Phase II. June 2000 TCRA addressed lead in soil (280 tons of soil removed). Additional removal in March 2002 (104 tons of soil) addressed elevated lead reported from adjacent AOC 14 sample. PRAP completed. Completed No Further Action ROD.

TABLE 2-1

**SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 4**

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of October 2008
Pistol Range	AOC 35	None	None	Small arms ammunition rounds at historic Pistol Range.	EBS Phase I. EBS Phase II. Completed TCRA for lead in soil. Removed the de-armament embankment. Completed No Further Action PRAP and ROD.
Former Radio Transmitter Building Area	AOC 53	None	None	Alleged disposal area. Mainly PAHs and some inorganic constituents detected in sediment.	EBS Phase I, EBS Phase II, removal actions, and CRAM completed. Completed No Further Action PRAP and ROD.
Area North of Trotter Road - Antennae Field	AOC 55A	None	None	Seven antenna poles and associated copper cables.	Phase I EBS, Phase II EBS. Removal action in September 2002 removed antenna poles, platforms, grounding wires, and adjacent soil (840 tons of soil) to lower ecological risk. Completed No Further Action PRAP and ROD.
Area North of Trotter Road - Debris Area	AOC 55B	None	None	Solid waste disposal over a large, heavily wooded area.	Phase I EBS, Phase II EBS. Debris removal in 1999. Completed No Action PRAP and ROD.
Area North of Trotter Road - Pond Area	AOC 55C	None	None	Metallic debris in heavily wooded area and pond. Metals in soil and sediment.	Phase II EBS. Human health and ecological risk assessments completed. RI report pending.
Area North of Trotter Road - Wetland Area	AOC 55D	None	None	Metals, PCBs exceed ecological benchmarks in surface water and sediment.	Formerly part of AOC 55B. Completed streamlined HHRA and ERA. Completed No Action PRAP and ROD.
East Mat Drainage Ditch	AOC 60	None	None	Discolored water and solid waste identified in drainage ditch.	Phase I EBS, Phase II EBS. Removal actions completed in 2004 and 2007. Completed No Further Action PRAP. Pending ROD.
TACAN Ditch	AOC 61	None	None	Discolored water in drainage ditch.	EBS Phase I, EBS Phase II. Completed Removal Action to address the TACAN Outfall drainage system, associated ditches, drainage swales, storm sewer lines, and catch basins in other areas at the Base. Cleaned the 60-in. storm drains and removed sediment in the TACAN ditch. Completed No Further Action PRAP. Pending ROD.

TABLE 2-1

**SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 4**

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status as of October 2008
Hazardous Waste Storage Area	AOC 83	None	None	RCRA Closure. PCB in subsurface soil.	EBS Phase I, EBS Phase II. Completed HHRA. PRAP in progress.
East Street Gate Area	AOC 100	None	None	Debris disposal area. Various inorganics exceeded background and ecological benchmarks for surface soil.	EBS Phase I, EBS Phase II. Removal action completed in Fall 2001 (1,194 tons of soil and debris). PRAP completed. Completed No Further Action ROD.

NOTES:

PA = Preliminary Assessment
SI = Site Inspection
RI = Remedial Investigation (Phase I and II)
FS = Feasibility Study
PRAP = Proposed Remedial Action Plan (or Proposed Plan)
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
ROD = Record of Decision
MCP = Massachusetts Contingency Plan
TCRA = Time Critical Removal Action
AOC = Area of Concern.
CMR = Code of Massachusetts Regulations.
CRAM = Closeout Removal Action Memoranda
RCRA = Resource Conservation and Recovery Act
EBS = Environmental Baseline Survey
HHRA = Human Health Risk Assessment
ERA = Ecological Risk Assessment
LTM = Long-Term Monitoring
TACAN = Tactical Air Navigation

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
Inorganics									
ALUMINUM (Total)	mg/kg	3030 J	**11600 J**	7090 J	5000 J	3340 J	2090 J	5790 J	8560 J
ANTIMONY (Total)	mg/kg	0.31 J	**0.9 J**	0.24 J	0.21 UJ	0.21 UJ	0.21 UJ	0.25 J	0.23 J
ARSENIC (Total)	mg/kg	1.2 U	**3**	2.2	1.1 U	0.83 U	1.5	2.1	2.6
BARIUM (Total)	mg/kg	16.8 J	69.9 J	38.3 J	20.1 J	14.1 J	152 J	**196 J**	41 J
BERYLLIUM (Total)	mg/kg	0.09 U	**1.2**	0.6 U	0.34 U	0.13 U	0.14 U	0.54 U	0.79 U
CADMIUM (Total)	mg/kg	0.43	**2.4**	1.3	0.42	0.32	0.35	0.69	0.83
CALCIUM METAL (Total)	mg/kg	463	**2620**	1250	884	664	737	942	1450
CHROMIUM (Total)	mg/kg	11.4	**28.4**	15.4	8	5.7	7.8	11.2	16
COBALT (Total)	mg/kg	0.64 U	3.6 U	2.4 U	1.1 U	1.1 U	0.64 U	2.6 U	4.6 U
COPPER (Total)	mg/kg	11.7 J	**36.5 J**	41.1 J	7.9 J	8.2 J	5.8 J	19.8 J	29.1 J
CYANIDE	mg/kg	0.104 UJ	0.121 UJ	0.118 UJ	0.104 UJ	0.104 UJ	0.104 UJ	0.104 UJ	0.104 UJ
IRON (Total)	mg/kg	5110 J	**13100 J**	9050 J	6330 J	5560 J	5420 J	8450 J	12000 J
LEAD (Total)	mg/kg	79 J	**272 J**	146 J	45.2 J	32.5 J	39.2 J	131 J	181 J
MAGNESIUM (Total)	mg/kg	664 J	**2160 J**	1280 J	928 J	887 J	434 J	942 J	1300 J
MANGANESE (Total)	mg/kg	45.3 J	244 J	160 J	69.9 J	97.8 J	182 J	220 J	**357 J**
MERCURY (Total)	mg/kg	0.12 U	0.19 U	0.21 U	0.1 U	0.07 U	0.06 U	0.29	**0.32**
NICKEL (Total)	mg/kg	3.3	**12.4**	7.6	3.2	2.3	2 J	6.5	10
POTASSIUM (Total)	mg/kg	144	**440**	266	223	185	181	280	327
SELENIUM (Total)	mg/kg	0.48 UJ	1.7 UJ	0.92 UJ	0.54 UJ	0.37 UJ	0.72 UJ	0.88 UJ	1.2 UJ
SILVER (Total)	mg/kg	0.16 U	0.28 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
SODIUM (Total)	mg/kg	114 U	260 U	134 U	120 U	140 U	122 U	176 U	172 U
THALLIUM (Total)	mg/kg	0.15 U	0.26 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
TOTAL ORGANIC CARBON (Total)	mg/kg	117000 J	**85300 J**	119000 J	31700 J	25700 J	8810 J	46200 J	69300 J

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
VANADIUM (Total)	mg/kg	17.5	**47.9**	31.2	10.9	9.6	9.1	23.5	29.9
ZINC (Total)	mg/kg	33.5 J	**223 J**	121 J	38.3 J	56.4 J	58.8 J	93.3 J	158 J
PAHs									
1,2-BENZPHENANTHRACENE	ug/kg	1600	**510**	480	340	350	190 J	480 J	300
1-METHYLNAPHTHALENE	ug/kg	200 J	120 J	33 U	68	56 J	110	**230 J**	62
2-METHYLNAPHTHALENE	ug/kg	1800 J	530 J	510 J	320	370 J	250	**620 J**	320
ACENAPHTHENE	ug/kg	3400 J	**1600 J**	1100	830	980 J	460	1300 J	760
ACENAPHTHYLENE	ug/kg	120 J	83 J	67 U	67 U	67 U	67 U	**94 J**	66 U
ANTHRACENE	ug/kg	610 J	100 J	100 J	110 J	**130 J**	63 J	94 J	98 J
BENZO(A)ANTHRACENE	ug/kg	1600	**550**	440	290	330	120	360	260
BENZO(A)PYRENE	ug/kg	1600	**580**	430	330	330	130	360	310
BENZO(B)FLUORANTHENE	ug/kg	1700 J	**820 J**	420 J	400 J	380 J	160 J	530 J	300
BENZO(G,H,I)PERYLENE	ug/kg	1000	**330 J**	260	210	160 J	100	270 J	200
BENZO(K)FLUORANTHENE	ug/kg	870 J	**340 J**	270 J	200 J	190 J	120 J	250 J	180 J
DIBENZO(A,H)ANTHRACENE	ug/kg	560 J	**260 J**	230	140	73 J	34	120 J	83
FLUORANTHENE	ug/kg	5200 J	**1700 J**	1400 J	970 J	1100 J	700 J	1500 J	900 J
FLUORENE	ug/kg	270 J	64 J	63	43	120 J	84	**140 J**	31
INDENO(1,2,3-C,D)PYRENE	ug/kg	830 J	**300 J**	220 J	190 J	130 J	68 J	160 J	130 J
NAPHTHALENE	ug/kg	160 U	**89 J**	71	33 U	33 U	33 U	33 U	33 U
PHENANTHRENE	ug/kg	2600	740	650 J	510	740	610	**940**	430
PYRENE	ug/kg	4100	**1300**	1100	760	810	500	1100	700
PCBs									
AROCHLOR 1016	ug/kg	33 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U
AROCHLOR 1221	ug/kg	67 U	67 U	67 U	67 U	66 U	66 U	67 U	66 U
AROCHLOR 1232	ug/kg	33 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
AROCHLOR 1242	ug/kg	33 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U
AROCHLOR 1248	ug/kg	33 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U
AROCHLOR 1254	ug/kg	33 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U
AROCHLOR 1260	ug/kg	590 J	180 J	250 J	260 J	**270 J**	75 J	220 J	250 J
Pesticides									
1,1,1-TRICHLORO-2,2-BIS (P-METHOXPHENYL)-ETHANE	ug/kg	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U
4,4'-DDD	ug/kg	140	**100 J**	140	54	36 J	14	43	48
4,4'-DDE	ug/kg	39	11 J	17 J	7.2 J	9.6 J	3.7 J	**14**	12 J
4,4'-DDT	ug/kg	44 R	**48 J**	21 R	11 J	4.7 R	3.2 J	11 J	6.6 R
ALDRIN	ug/kg	3.8 J	**1.5 J**	1.8 J	**1.5 J**	0.65 J	1.7 U	1 J	1.2 J
ALPHA-BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
ALPHA-CHLORDANE	ug/kg	38	14	19	7.9	3.4 J	2.6	13	**15**
BETA-BHC	ug/kg	1.7 U	1.7 U	7.6	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
CAMPHECHLOR	ug/kg	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
DELTA-BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
DIELDRIN	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	**3.4**	2.6
Pesticides (cont.)									
ENDOSULFAN I	ug/kg	43	7.5 J	1.7 U	7.1 J	4.2 J	3	7.1 J	**9.1 J**
ENDOSULFAN II	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
ENDOSULFAN SULFATE	ug/kg	22 J	5.3 R	18	5.7 J	2.3 J	3.3 U	**7.2**	5.4
ENDRIN	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
ENDRIN ALDEHYDE	ug/kg	31	8.3	17	**13**	12	3.3	12	**13**
ENDRIN KETONE	ug/kg	12 J	2.9 R	4.6 R	5.9	**7.4 J**	1.3 R	4.6 J	5 J

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
GAMMA-BHC (LINDANE)	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
GAMMA-CHLORDANE	ug/kg	35	14	21	8.3	3.1 J	2.4	13	**15**
HEPTACHLOR	ug/kg	1.5	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
HEPTACHLOR EPOXIDE	ug/kg	25 J	7.5 J	7.6 J	5.7 J	3.9 R	2.7 J	6.6 J	**7.8 J**
Semi-volatiles									
1,2,4-TRICHLOROBENZENE	ug/kg	75 U	75 U	75 U	75 U	75 U	74 U	150 U	150 U
1,2-BENZPHENANTHRACENE	ug/kg	1900 J	1100	19000 J	470 J	300 J	240 J	560 J	1500 J
1,2-DICHLOROBENZENE	ug/kg	54 U	54 U	54 U	54 U	54 U	54 U	110 U	110 U
1,4-DICHLOROBENZENE	ug/kg	73 U	73 U	73 U	73 U	73 U	72 U	150 U	150 U
2,2'-OXYBIS(1-CHLOROPROPANE)	ug/kg	83 U	83 U	83 U	83 U	83 U	82 U	170 U	170 U
2,4,5-TRICHLOROPHENOL	ug/kg	65 U	65 U	65 U	65 U	65 U	65 U	130 U	130 U
2,4,6-TRICHLOROPHENOL	ug/kg	77 U	77 U	77 U	77 U	77 U	76 U	150 U	150 U
2,4-DICHLOROPHENOL	ug/kg	68 U	68 U	68 U	68 U	68 U	67 U	140 U	140 U
2,4-DIMETHYLPHENOL	ug/kg	130 U	130 U	130 UJ	130 U	130 U	130 U	260 U	260 U
2,4-DINITROPHENOL	ug/kg	630 U	630 U	630 U	630 U	630 U	630 U	1300 U	1300 U
2,4-DINITROTOLUENE	ug/kg	51 U	51 U	51 U	51 U	51 U	51 U	100 UJ	100 U
2,6-DINITROTOLUENE	ug/kg	58 U	58 U	58 U	58 U	58 U	58 U	120 U	120 U
2-CHLORONAPHTHALENE	ug/kg	74 U	74 U	74 U	74 U	74 U	73 U	150 U	150 U
2-CHLOROPHENOL	ug/kg	64 U	64 U	64 U	64 U	64 U	64 U	130 U	130 U
2-METHYLNAPHTHALENE	ug/kg	63 U	63 U	830	63 U	63 U	63 U	130 U	420
2-METHYLPHENOL (O-CRESOL)	ug/kg	77 U	77 U	77 U	77 U	77 U	76 U	150 U	150 U
2-NITROANILINE	ug/kg	64 U	64 U	64 U	64 U	64 U	64 U	130 U	130 U
2-NITROPHENOL	ug/kg	55 U	55 U	55 U	55 U	55 U	55 U	110 U	110 U
3,3'-DICHLOROBENZIDINE	ug/kg	47 R	47 U	47 R	47 R	47 UJ	47 UJ	94 UJ	93 UJ

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 5 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE	ug/kg	81 U	81 U	81 U	81 U	81 U	80 U	160 U	160 U
3-NITROANILINE	ug/kg	51 U	51 U	51 U	51 U	51 U	51 U	100 U	100 U
4,6-DINITRO-2-METHYLPHENOL	ug/kg	64 U	64 U	64 UJ	64 U	64 U	64 U	130 U	130 U
4-BROMOPHENYL PHENYL ETHER	ug/kg	61 U	61 U	61 UJ	61 U	61 U	61 U	120 U	120 U
4-CHLORO-3-METHYLPHENOL	ug/kg	70 U	70 U	70 U	70 U	70 U	69 U	140 UJ	140 U
4-CHLOROPHENYL PHENYL ETHER	ug/kg	71 U	71 U	71 U	71 U	71 U	70 U	140 U	140 U
4-METHYLPHENOL (P-CRESOL)	ug/kg	140	160 U	37	200	240	160 U	320 U	720
4-NITROPHENOL	ug/kg	52 U	52 U	52 U	52 U	52 U	52 U	100 UJ	100 U
ACENAPHTHENE	ug/kg	110	43	7200	51	68 U	67 U	140 U	**430**
ACENAPHTHYLENE	ug/kg	190	40	100	38	71 U	70 U	140 U	**140**
ANTHRACENE	ug/kg	350	200	14000	120	85	35	130	**380**
BENZO(A)ANTHRACENE	ug/kg	1900 J	900	22000 J	410 J	270 J	160 J	510 J	**1300 J**
BENZO(A)PYRENE	ug/kg	1700 J	870 J	16000 J	410 J	270 J	160 J	460 J	**1200 J**
BENZO(B)FLUORANTHENE	ug/kg	2700 J	1500 J	21000 J	610 J	390 J	290 J	760 J	**2000 J**
BENZO(G,H,I)PERYLENE	ug/kg	1400 J	470 J	8900 J	330 J	180 J	160 J	430 J	**920 J**
BENZO(K)FLUORANTHENE	ug/kg	670 J	450 J	5800 J	190 J	160 J	94 J	250 J	**570 J**
BENZYL BUTYL PHTHALATE	ug/kg	120 J	56 U	64 J	56 R	56 UJ	56 UJ	110 UJ	110 UJ
BIS(2-CHLOROETHOXY)METHANE	ug/kg	69 U	69 U	69 U	69 U	69 U	68 U	140 U	140 U
BIS(2-CHLOROETHYL)ETHER	ug/kg	63 U	63 U	63 U	63 U	63 U	63 U	130 U	130 U
BIS(2-ETHYLHEXYL)PHTHALATE	ug/kg	980 J	**1500**	1600 J	410 J	460 J	200 J	540 J	1300 J
CARBAZOLE	ug/kg	120	110	2800 J	77	43	46 U	87	**390**
DI-N-BUTYL PHTHALATE	ug/kg	46 U	46 U	46 UJ	46 U	46 U	46 U	92 U	91 U
DI-N-OCTYL PHTHALATE	ug/kg	64 R	64 UJ	64 R	64 UJ	56 J	48 J	180 J	130 UJ
DIBENZO(A,H)ANTHRACENE	ug/kg	370 J	120 J	2400 J	110 J	54 J	71 R	140 UJ	**260 J**

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 6 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
DIBENZOFURAN	ug/kg	44	73 U	3200	73 U	73 U	72 U	150 U	**350**
DIETHYL PHTHALATE	ug/kg	47 U	47 U	47 U	47 U	47 U	47 U	94 U	93 U
DIMETHYL PHTHALATE	ug/kg	55 U	55 U	55 U	55 U	55 U	55 U	110 U	110 U
FLUORANTHENE	ug/kg	1900	1500	35000	770	530	250	910	**2700**
FLUORENE	ug/kg	100	56	6900	59	34	66 U	130 U	**390**
HEXACHLORO-1,3-BUTADIENE	ug/kg	67 U	67 U	67 U	67 U	67 U	66 U	130 U	130 U
HEXACHLOROBENZENE	ug/kg	59 U	59 U	59 UJ	59 U	59 U	59 U	120 U	120 U
HEXACHLOROCYCLOPENTADIENE	ug/kg	130 UJ	130 UJ	130 U	130 UJ	130 UJ	130 UJ	260 UJ	260 UJ
HEXACHLOROETHANE	ug/kg	61 U	61 U	61 U	61 U	61 U	61 U	120 U	120 U
INDENO(1,2,3-C,D)PYRENE	ug/kg	1500 J	550 J	9800 J	340 J	190 J	160 J	410 J	**1000 J**
M-DICHLOROBENZENE	ug/kg	72 U	72 U	72 U	72 U	72 U	71 U	140 U	140 U
Semi-volatiles (cont.)									
N-NITROSODI-N-PROPYLAMINE	ug/kg	86 U	86 U	86 U	86 U	86 U	85 U	170 U	170 U
N-NITROSODIPHENYLAMINE	ug/kg	57 U	57 U	57 UJ	57 U	57 U	57 U	110 U	110 U
NAPHTHALENE	ug/kg	36	59 U	590	59 U	59 U	59 U	120 U	**120**
NITROBENZENE	ug/kg	72 U	72 U	72 U	72 U	72 U	71 U	140 U	140 U
P-CHLOROANILINE	ug/kg	68 U	68 U	68 U	68 U	68 U	67 U	140 U	140 U
P-NITROANILINE	ug/kg	45 U	45 U	45 U	45 U	45 U	45 U	90 U	89 U
PENTACHLOROPHENOL	ug/kg	310 U	310 U	310 UJ	310 U	310 U	310 U	**220**	160
PHENANTHRENE	ug/kg	1200	820	46000	600	380	210	690	**2800**
PHENOL	ug/kg	66 U	66 U	66 U	66 U	66 U	65 U	130 U	**87**
PYRENE	ug/kg	5600 J	2100	72000 J	1300 J	880 J	630 J	1400 J	**5400 J**
Volatiles									
1,1,1-TRICHLOROETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
1,1,2,2-TETRACHLOROETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 UJ

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 7 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
1,1,2-TRICHLOROETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 UJ
1,1-DICHLOROETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
1,1-DICHLOROETHYLENE	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 U
1,2-DICHLOROETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
1,2-DICHLOROETHENE (TOTAL)	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 U
1,2-DICHLOROPROPANE	ug/kg	7 U	9 U	9 U	7 U	6 U	5 U	6 U	7 U
2-BUTANONE	ug/kg	7 U	9 U	28	7 U	6 U	5 U	6 U	7 U
4-METHYL-2-PENTANONE	ug/kg	17 U	23 U	23 U	17 U	15 U	13 U	16 U	18 U
ACETONE	ug/kg	81	7 R	140	5 R	5 R	4 R	5 U	260 J
BENZENE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
BROMODICHLOROMETHANE	ug/kg	2 U	2 U	2 U	2 U	1 U	1 U	1 U	2 U
BROMOMETHANE	ug/kg	5 U	7 U	7 U	5 U	5 U	4 U	5 U	5 U
CARBON DISULFIDE	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 U
CARBON TETRACHLORIDE	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 U
CHLOROBENZENE	ug/kg	2 U	2 U	2 U	2 U	1 U	1 U	1 U	2 UJ
CHLORODIBROMOMETHANE	ug/kg	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 UJ
CHLOROETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
CHLOROFORM	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
CHLOROMETHANE	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 U
CIS-1,3-DICHLOROPROPENE	ug/kg	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U
DICHLOROMETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
ETHYLBENZENE	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 UJ
METHYL N-BUTYL KETONE	ug/kg	7 U	9 U	9 U	7 U	6 U	5 U	6 U	7 UJ
METHYLBENZENE	ug/kg	7	2 U	2 U	2 U	2 U	1 U	2 U	2 UJ
STYRENE (MONOMER)	ug/kg	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 UJ

TABLE 2-2
SEDIMENT DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 8 OF 8

	Sample Name:	SD11-136R*	SD11-137R	SD11-138R*	SD11-139R	SD11-140R	SD11-141R	SD11-142R	SD11-143R
Analyte	**Units**								
TETRACHLOROETHENE	ug/kg	3 U	5 U	5 U	3 U	3 U	2	2 J	6 J
TRANS-1,3-DICHLOROPROPENE	ug/kg	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 UJ
TRIBROMOMETHANE	ug/kg	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 UJ
TRICHLOROETHYLENE	ug/kg	2 U	2 U	2 U	2 U	1 U	1 U	2 J	2 U
VINYL CHLORIDE	ug/kg	3 U	5 U	5 U	3 U	3 U	3 U	3 U	4 U
XYLENES (TOTAL)	ug/kg	5 U	7 U	7 U	5 U	5 U	4 U	5 U	5 UJ
PERCENT MOISTURE									
PERCENT MOISTURE	%	41	57	56	41	34	23	37	45

Notes:

* Locations included in removal action.

J - estimated result value.

U - not detected at reporting limit.

UJ - estimated non-detect.

R- data rejected during validation.

Source: Final AOC 60 East Mat Drainage Ditch Streamlined Ecological Risk Assessment at Naval Air Station South Weymouth, MA.

Stone & Webster, 2004. August 2004.

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
Inorganics								
7429-90-5	ALUMINUM (Dissolved)	ug/L		107.85		84.4		73.1 J
7440-36-0	ANTIMONY (Dissolved)	ug/L		1 U		1 U		1.1 J
7440-38-2	ARSENIC (Dissolved)	ug/L		1.7 U		1.7 U		1.7 U
7440-39-3	BARIUM (Dissolved)	ug/L		12.3 U		12.3 U		12.3 U
7440-41-7	BERYLLIUM (Dissolved)	ug/L		0.4 U		0.4 U		0.4 U
7440-43-9	CADMIUM (Dissolved)	ug/L		0.305 U		0.29 U		0.25 U
7440-70-2	CALCIUM METAL (Dissolved)	ug/L		10250		9570		9430
7440-47-3	CHROMIUM (Dissolved)	ug/L		2.5 U		2.5 U		2.5 U
7440-48-4	COBALT (Dissolved)	ug/L		7.5 U		7.5 U		7.5 U
7440-50-8	COPPER (Dissolved)	ug/L		2.1 U		2.1 U		2.1 U
HARDNESS	HARDNESS	mg/L		43.375		40.35		37.87
7439-89-6	IRON (Dissolved)	ug/L		261.5 J		270 J		193 J
7439-92-1	LEAD (Dissolved)	ug/L		1.1 U		1.6 U		1.9 U
7439-95-4	MAGNESIUM (Dissolved)	ug/L		3885		3600		3410
7439-96-5	MANGANESE (Dissolved)	ug/L		85.6 J/UJ		94.1 J		14 UJ
7439-97-6	MERCURY (Dissolved)	ug/L		0.13 U		0.14 U		0.13 U
7440-02-0	NICKEL (Dissolved)	ug/L		13.1 U		13.1 U		13.1 U
7440-09-7	POTASSIUM (Dissolved)	ug/L		978		1020		1040
7782-49-2	SELENIUM (Dissolved)	ug/L		2.8 U		2.8 U		2.9
7440-22-4	SILVER (Dissolved)	ug/L		2.2 U		2.2 U		2.2 U
7440-23-5	SODIUM (Dissolved)	ug/L		13450		13300		12600
7440-28-0	THALLIUM (Dissolved)	ug/L		1.7 U		1.7 U		1.7 U
7440-62-2	VANADIUM (Dissolved)	ug/L		5.6 U		5.6 U		5.6 U
7440-66-6	ZINC (Dissolved)	ug/L		24.225 /U		25.7 U		25.8 U

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
PAHs								
56-55-3	BENZO(A)ANTHRACENE	ug/L	0.01 U		0.07 J		0.01 UJ	
50-32-8	BENZO(A)PYRENE	ug/L	0.05 J		0.14 UJ		0.03 UJ	
205-99-2	BENZO(B)FLUORANTHENE	ug/L	0.02 U		0.02 UJ		0.02 UJ	
191-24-2	BENZO(G,H,I)PERYLENE	ug/L	0.08 J		0.08 J		0.02 UJ	
207-08-9	BENZO(K)FLUORANTHENE	ug/L	0.008 U		0.008 UJ		0.03 UJ	
53-70-3	DIBENZO(A,H)ANTHRACENE	ug/L	0.02 U		0.46 J		0.05 UJ	
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/L	0.04 UJ		0.06 J		0.04 UJ	
PCBs								
12674-11-2	AROCHLOR 1016	ug/L	0.62 U		0.62 UJ		0.62 UJ	
11104-28-2	AROCHLOR 1221	ug/L	0.61 U		0.61 UJ		0.61 UJ	
11141-16-5	AROCHLOR 1232	ug/L	0.76 U		0.76 UJ		0.76 UJ	
53469-21-9	AROCHLOR 1242	ug/L	0.54 U		0.54 UJ		0.54 UJ	
12672-29-6	AROCHLOR 1248	ug/L	0.54 U		0.54 UJ		0.54 UJ	
11097-69-1	AROCHLOR 1254	ug/L	0.68 U		0.68 UJ		0.68 UJ	
11096-82-5	AROCHLOR 1260	ug/L	0.14 U		0.14 UJ		0.14 UJ	
Pesticides								
72-54-8	4,4'-DDD	ug/L	0.01 J		0.01 UJ		0.01 UJ	
72-55-9	4,4'-DDE	ug/L	0.02 U		0.02 UJ		0.02 UJ	
50-29-3	4,4'-DDT	ug/L	0.01 UJ		0.01 UJ		0.01 UJ	
309-00-2	ALDRIN	ug/L	0.04 U		0.04 UJ		0.04 UJ	
319-84-6	ALPHA-BHC	ug/L	0.008 U		0.008 UJ		0.008 UJ	
5103-71-9	ALPHA-CHLORDANE	ug/L	0.01 U		0.01 UJ		0.01 UJ	

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
319-85-7	BETA-BHC	ug/L	0.008 U		0.008 UJ		0.008 UJ	
8001-35-2	CAMPHECHLOR	ug/L	2.4 U		2.4 UJ		2.4 UJ	
319-86-8	DELTA-BHC	ug/L	0.006 U		0.006 UJ		0.006 UJ	
60-57-1	DIELDRIN	ug/L	0.01 U		0.01 UJ		0.01 UJ	
959-98-8	ENDOSULFAN I	ug/L	0.005 U		0.005 UJ		0.005 UJ	
33213-65-9	ENDOSULFAN II	ug/L	0.02 U		0.02 UJ		0.02 UJ	
72-20-8	ENDRIN	ug/L	0.01 U		0.01 UJ		0.01 UJ	
7421-93-4	ENDRIN ALDEHYDE	ug/L	0.02 U		0.02 UJ		0.02 UJ	
58-89-9	GAMMA-BHC (LINDANE)	ug/L	0.004 U		0.004 UJ		0.004 UJ	
5103-74-2	GAMMA-CHLORDANE	ug/L	0.01 U		0.01 UJ		0.01 UJ	
76-44-8	HEPTACHLOR	ug/L	0.03 U		0.03 UJ		0.03 UJ	
1024-57-3	HEPTACHLOR EPOXIDE	ug/L	0.006 U		0.006 UJ		0.006 UJ	
Semivolatiles								
120-82-1	1,2,4-TRICHLOROBENZENE	ug/L	3 U		3 UJ		3 UJ	
218-01-9	1,2-BENZPHENANTHRACENE	ug/L	3 U		3 UJ		3 UJ	
108-60-1	2,2'-OXYBIS(1-CHLOROPROPANE)	ug/L	4 U		4 UJ		4 UJ	
95-95-4	2,4,5-TRICHLOROPHENOL	ug/L	3 U		3 UJ		3 UJ	
88-06-2	2,4,6-TRICHLOROPHENOL	ug/L	3 U		3 UJ		3 UJ	
120-83-2	2,4-DICHLOROPHENOL	ug/L	3 U		3 UJ		3 UJ	
105-67-9	2,4-DIMETHYLPHENOL	ug/L	3 U		3 UJ		3 UJ	
51-28-5	2,4-DINITROPHENOL	ug/L	6 R		6 UJ		6 UJ	

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
121-14-2	2,4-DINITROTOLUENE	ug/L	4 UJ		4 UJ		4 UJ	
606-20-2	2,6-DINITROTOLUENE	ug/L	4 UJ		4 UJ		24 UJ	
91-58-7	2-CHLORONAPHTHALENE	ug/L	3 U		3 UJ		3 UJ	
95-57-8	2-CHLOROPHENOL	ug/L	3 U		3 UJ		3 UJ	
91-57-6	2-METHYLNAPHTHALENE	ug/L	3 U		3 UJ		3 UJ	
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/L	4 U		4 UJ		4 UJ	
88-74-4	2-NITROANILINE	ug/L	5 UJ		5 UJ		5 UJ	
88-75-5	2-NITROPHENOL	ug/L	3 U		3 UJ		3 UJ	
91-94-1	3,3'-DICHLOROBENZIDINE	ug/L	4 UJ		4 UJ		4 UJ	
78-59-1	3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE	ug/L	4 U		4 UJ		4 UJ	
99-09-2	3-NITROANILINE	ug/L	4 UJ		4 UJ		4 UJ	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/L	6 UJ		6 UJ		6 UJ	
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/L	5 U		5 UJ		5 UJ	
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/L	4 U		4 UJ		4 UJ	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/L	4 U		4 UJ		4 UJ	
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/L	4 U		4 UJ		4 UJ	
100-02-7	4-NITROPHENOL	ug/L	5 R		5 UJ		5 UJ	
83-32-9	ACENAPHTHENE	ug/L	3 U		3 UJ		3 UJ	
208-96-8	ACENAPHTHYLENE	ug/L	4 U		4 UJ		4 UJ	
120-12-7	ANTHRACENE	ug/L	4 U		4 UJ		4 UJ	
85-68-7	BENZYL BUTYL PHTHALATE	ug/L	4 UJ		4 UJ		4 UJ	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	ug/L	4 U		4 UJ		4 UJ	
111-44-4	BIS(2-CHLOROETHYL)ETHER	ug/L	4 U		4 UJ		4 UJ	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	7 UJ		7 UJ		2 UJ	

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 5 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
86-74-8	CARBAZOLE	ug/L	5 U		5 UJ		5 UJ	
84-74-2	DI-N-BUTYL PHTHALATE	ug/L	4 U		4 UJ		4 UJ	
117-84-0	DI-N-OCTYL PHTHALATE	ug/L	4 UJ		4 UJ		4 UJ	
132-64-9	DIBENZOFURAN	ug/L	4 U		4 UJ		4 UJ	
84-66-2	DIETHYL PHTHALATE	ug/L	3 U		3 UJ		3 UJ	
131-11-3	DIMETHYL PHTHALATE	ug/L	3 U		3 UJ		3 UJ	
206-44-0	FLUORANTHENE	ug/L	5 U		5 UJ		5 UJ	
86-73-7	FLUORENE	ug/L	4 U		4 UJ		4 UJ	
87-68-3	HEXACHLORO-1,3-BUTADIENE	ug/L	4 U		4 UJ		4 UJ	
118-74-1	HEXACHLOROBENZENE	ug/L	6 U		6 UJ		6 UJ	
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/L	2 R		2 UJ		2 UJ	
67-72-1	HEXACHLOROETHANE	ug/L	3 U		3 UJ		3 UJ	
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/L	4 U		4 UJ		4 UJ	
86-30-6	N-NITROSODIPHENYLAMINE	ug/L	4 U		4 UJ		4 UJ	
91-20-3	NAPHTHALENE	ug/L	3 U		3 UJ		3 UJ	
106-47-8	P-CHLOROANILINE	ug/L	5 U		5 UJ		5 UJ	
100-01-6	P-NITROANILINE	ug/L	4 UJ		4 UJ		4 UJ	
85-01-8	PHENANTHRENE	ug/L	5 U		5 UJ		5 UJ	
108-95-2	PHENOL	ug/L	4 U		4 UJ		4 UJ	
129-00-0	PYRENE	ug/L	4 U		4 UJ		4 UJ	
Volatiles								
71-55-6	1,1,1-TRICHLOROETHANE	ug/L	1 UJ		1 U		1 U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/L	1 UJ		1 U		1 U	
79-00-5	1,1,2-TRICHLOROETHANE	ug/L	1 UJ		1 U		1 U	
75-34-3	1,1-DICHLOROETHANE	ug/L	1 UJ		1 U		1 U	

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 6 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
75-35-4	1,1-DICHLOROETHYLENE	ug/L	1 UJ		1 U		1 U	
107-06-2	1,2-DICHLOROETHANE	ug/L	1 UJ		1 U		1 U	
540-59-0	1,2-DICHLOROETHENE (TOTAL)	ug/L	1 UJ		1 U		1 U	
Volatiles (cont.)								
78-87-5	1,2-DICHLOROPROPANE	ug/L	1 UJ		1 U		1 U	
78-93-3	2-BUTANONE	ug/L	5 R		5 R		5 R	
108-10-1	4-METHYL-2-PENTANONE	ug/L	5 UJ		5 R		5 R	
67-64-1	ACETONE	ug/L	0.54 J		10 UJ		5 UJ	
71-43-2	BENZENE	ug/L	1 UJ		1 U		1 U	
75-27-4	BROMODICHLOROMETHANE	ug/L	1 UJ		1 U		1 U	
74-83-9	BROMOMETHANE	ug/L	2 UJ		2 U		2 U	
75-15-0	CARBON DISULFIDE	ug/L	1 UJ		1 U		1 U	
56-23-5	CARBON TETRACHLORIDE	ug/L	1 UJ		1 U		1 U	
108-90-7	CHLOROBENZENE	ug/L	1 UJ		1 U		1 U	
124-48-1	CHLORODIBROMOMETHANE	ug/L	1 UJ		1 U		1 U	
75-00-3	CHLOROETHANE	ug/L	2 UJ		2 U		2 U	
67-66-3	CHLOROFORM	ug/L	1 UJ		1 U		1 U	
74-87-3	CHLOROMETHANE	ug/L	2 UJ		2 U		2 U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/L	1 UJ		1 U		1 U	
75-09-2	DICHLOROMETHANE	ug/L	2 UJ		2 U		2 U	
100-41-4	ETHYLBENZENE	ug/L	1 UJ		1 U		1 U	
591-78-6	METHYL N-BUTYL KETONE	ug/L	5 UJ		5 UJ		5 UJ	
108-88-3	METHYLBENZENE	ug/L	1 UJ		1 U		1 U	
95-47-6	O-XYLENE	ug/L	1 UJ		1 U		1 U	

TABLE 2-3
SURFACE WATER DATA USED IN THE STREAMLINED ECOLOGICAL RISK ASSESSMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 7 OF 7

CAS No.		Sample Name:	SW11-137	SW11-137R	SW11-140	SW11-140R	SW11-143	SW11-143R
	Analyte	Units						
100-42-5	STYRENE (MONOMER)	ug/L	1 UJ		1 U		1 U	
127-18-4	TETRACHLOROETHENE	ug/L	1 UJ		1 U		1 U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/L	1 UJ		1 U		1 U	
75-25-2	TRIBROMOMETHANE	ug/L	1 UJ		1 U		1 U	
79-01-6	TRICHLOROETHYLENE	ug/L	1 UJ		1 U		1 U	
75-01-4	VINYL CHLORIDE	ug/L	2 UJ		2 U		2 U	
1330-20-7	XYLENES (TOTAL)	ug/L	1 UJ		1 U		1 U	

Notes:

J – Estimated result value

U – Not detected at reporting limit

UJ – Estimated non-detect

R – Data rejected during validation

Blank field = Not analyzed for.

Source: Final AOC 60 East Mat Drainage Ditch Streamlined Ecological Risk Assessment at Naval Air Station South Weymouth, MA. Stone & Webster, 2004. August 2004.

TABLE 2-4 A
SEDIMENT ANALYTICAL RESULTS – JANUARY 2000
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 6

SAMPLE_ID				SD11-137R-NSD-012000	SD11-139R-NSD-011900	SD11-140R-NSD-012000	SD11-141R-NSD-011900	SD11-142R-NSD-011900	SD11-143R-NSD-012000
LOCATION_ID				SD11-137	SD11-139	SD11-140	SD11-141	SD11-142	SD11-143
TOP_DEPTH									
BOTTOM_DEPTH									
SAMPLE_DATE				01/20/00	01/19/00	01/20/00	01/19/00	01/19/00	01/20/00
SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SITE	HHBMK	ECOBMK	BKG	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
ACETONE	1400000	9	416.84	7 R	5 R	5 R	4 R	5 U	260 J
TETRACHLOROETHENE	480	410	2.6	5 U	3 U	3 U	2 J	2 J	6 J
TRICHLOROETHENE	53	220		2 U	2 U	1 U	1 U	2 J	2 U
2-METHYLNAPHTHALENE	5600	65		63 U	63 U	63 U	63 U	130 U	420
4-METHYLPHENOL	31000	12		160 U	200	240	160 U	320 U	720
ACENAPHTHENE	370000	150	83	43 J	51 J	68 U	67 U	140 U	
ACENAPHTHYLENE	370000	150	257.92	40 J	38 J	71 U	70 U	140 U	140
ANTHRACENE	2200000	57	435.6	200	120	85	35 J	130	380
BENZO(A)ANTHRACENE	150	108	1400	900	410 J	270 J	160 J	510 J	1300 J
BENZO(A)PYRENE	15	150	3446.52	870 J	410 J	270 J	160 J	460 J	1200 J
BENZO(B)FLUORANTHENE	150	1800	2000	1500 J	610 J	390 J	290 J	760 J	2000 J
BENZO(G,H,I)PERYLENE	230000	170	374.77	**470 J**	330 J	180 J	160 J		
BENZO(K)FLUORANTHENE	1500	240	1100	450 J	190 J	160 J	94 J	250 J	570 J

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 A
SEDIMENT ANALYTICAL RESULTS – JANUARY 2000
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 6

SAMPLE_ID				SD11-137R-NSD-012000	SD11-139R-NSD-011900	SD11-140R-NSD-012000	SD11-141R-NSD-011900	SD11-142R-NSD-011900	SD11-143R-NSD-012000
LOCATION_ID				SD11-137	SD11-139	SD11-140	SD11-141	SD11-142	SD11-143
TOP_DEPTH									
BOTTOM_DEPTH									
SAMPLE_DATE				01/20/00	01/19/00	01/20/00	01/19/00	01/19/00	01/20/00
SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SITE	HHBMK	ECOBMK	BKG	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
BIS(2-ETHYLHEXYL)PHTHALATE	35000	890000	640	1500	410 J	460 J	200 J	540 J	1300 J
CARBAZOLE	24000		226.11	110	77	43 J	46 U	87 J	390
CHRYSENE	15000	166	1700	1100	470 J	300 J	240 J	560 J	1500 J
DIBENZO(A,H)ANTHRACENE	15	33	190	120 J	110 J	54 J	71 R	140 UJ	
DIBENZOFURAN	7300	420	57	73 U	73 U	73 U	72 U	150 U	350
DI-N-OCTYL PHTHALATE	240000			64 UJ	64 UJ	56 J	48 J	180 J	130 UJ
FLUORANTHENE	230000	420	3000	1500	770	530	250	910	2700
FLUORENE	270000	77.4	130	56 J	59 J	34 J	66 U	130 U	
INDENO(1,2,3-CD)PYRENE	150	200	490		340 J	190 J	160 J	410 J	
NAPHTHALENE	5600	176		59 U	59 U	59 U	59 U	120 U	120
PENTACHLOROPHENOL	3000			310 U	310 U	310 U	310 U	220 J	160 J
PHENANTHRENE	370000	204	1400	820	600	380	210	690	
PHENOL	1800000	48		66 U	66 U	66 U	65 U	130 U	87 J

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE;
J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 A
SEDIMENT ANALYTICAL RESULTS – JANUARY 2000
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 6

SAMPLE_ID				SD11-137R-NSD-012000	SD11-139R-NSD-011900	SD11-140R-NSD-012000	SD11-141R-NSD-011900	SD11-142R-NSD-011900	SD11-143R-NSD-012000
LOCATION_ID				SD11-137	SD11-139	SD11-140	SD11-141	SD11-142	SD11-143
TOP_DEPTH									
BOTTOM_DEPTH									
SAMPLE_DATE				01/20/00	01/19/00	01/20/00	01/19/00	01/19/00	01/20/00
SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SITE	HHBMK	ECOBMK	BKG	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
PYRENE	230000	195	2300	2100	1300 J	880 J	630 J	1400 J	
TOTAL PAHS		1610	14819	10719 J	5808 J	3723 J	2389 J	6510 J	
1-METHYLNAPHTHALENE				120 J	68	56 J	110	230 J	62
2-METHYLNAPHTHALENE	5600	65		530 J	320	370 J	250	620 J	320
ACENAPHTHENE	370000	150	83	**1600 J**	**830**	**980 J**	**460**	**1300 J**	**760**
ACENAPHTHYLENE	370000	150	257.92	83 J	67 U	67 U	67 U	94 J	66 U
ANTHRACENE	2200000	57	435.6	100 J	110 J	130 J	63 J	94 J	98 J
BENZO(A)ANTHRACENE	150	108	1400	550	290	330	120	360	260
BENZO(A)PYRENE	15	150	3446.52	580	330	330	130	360	310
BENZO(B)FLUORANTHENE	150	1800	2000	820 J	400 J	380 J	160 J	530 J	300
BENZO(G,H,I)PERYLENE	230000	170	374.77	330 J	210	160 J	100	270 J	200
BENZO(K)FLUORANTHENE	1500	240	1100	340 J	200 J	190 J	120 J	250 J	180 J
CHRYSENE	15000	166	1700	510	340	350	190 J	480 J	300
DIBENZO(A,H)ANTHRACENE	15	33	190	**260 J**	140	73 J	34	120 J	83

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE;
J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 A
SEDIMENT ANALYTICAL RESULTS – JANUARY 2000
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 6

SAMPLE_ID				SD11-137R-NSD-012000	SD11-139R-NSD-011900	SD11-140R-NSD-012000	SD11-141R-NSD-011900	SD11-142R-NSD-011900	SD11-143R-NSD-012000
LOCATION_ID				SD11-137	SD11-139	SD11-140	SD11-141	SD11-142	SD11-143
TOP_DEPTH									
BOTTOM_DEPTH									
SAMPLE_DATE				01/20/00	01/19/00	01/20/00	01/19/00	01/19/00	01/20/00
SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SITE	HHBMK	ECOBMK	BKG	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
FLUORANTHENE	230000	420	3000	1700 J	970 J	1100 J	700 J	1500 J	900 J
FLUORENE	270000	77.4	130	64 J	43	120 J	84		31
INDENO(1,2,3-CD)PYRENE	150	200	490	300 J	190 J	130 J	68 J	160 J	130 J
NAPHTHALENE	5600	176		89 J	33 U	33 U	33 U	33 U	33 U
PHENANTHRENE	370000	204	1400	740	510	740	610	940	430
PYRENE	230000	195	2300	1300	760	810	500	1100	700
TOTAL PAHS		1610	14819	9896 J	5643 J	6193 J	3589 J	8318 J	5002 J
4,4'-DDD	2400	4.88	730	100 J	54	36 J	14	43	48
4,4'-DDE	1700	3.16	234.28	11 J	7.2 J	9.6 J	3.7 J	14	12 J
4,4'-DDT	1700	4.16	290	48 J	11 J	4.7 R	3.2 J	11 J	6.6 R
ALDRIN	29	2		1.5 J	1.5 J	0.65 J	1.7 U	1 J	1.2 J
ALPHA-CHLORDANE	1620	3.24	12	14	7.9	3.4 J	2.6		
AROCLOR-1260	220	59.8	230	180 J			75 J	220 J	
DIELDRIN	30	1.9	17	3.3 U	3.3 U	3.3 U	3.3 U	3.4	2.6 J

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 A
SEDIMENT ANALYTICAL RESULTS – JANUARY 2000
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 5 OF 6

SAMPLE_ID				SD11-137R-NSD-012000	SD11-139R-NSD-011900	SD11-140R-NSD-012000	SD11-141R-NSD-011900	SD11-142R-NSD-011900	SD11-143R-NSD-012000
LOCATION_ID				SD11-137	SD11-139	SD11-140	SD11-141	SD11-142	SD11-143
TOP_DEPTH									
BOTTOM_DEPTH									
SAMPLE_DATE				01/20/00	01/19/00	01/20/00	01/19/00	01/19/00	01/20/00
SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SITE	HHBMK	ECOBMK	BKG	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
ENDOSULFAN I	37000	5.5	8.6	7.5 J	7.1 J	4.2 J	3	7.1 J	
ENDOSULFAN SULFATE	37000	5.5	2.3	5.3 R		2.3 J	3.3 U		5.4
ENDRIN ALDEHYDE	1800	2.22	11	8.3			3.3		
ENDRIN KETONE	1800	2.22	6.6	2.9 R	5.9		1.3 R	4.6 J	5 J
GAMMA-CHLORDANE	1620	3.24	14	14	8.3	3.1 J	2.4	13	
HEPTACHLOR EPOXIDE	53	2.47	1.7			3.9 R			
TOTAL AROCLOR	220	59.8		180 J			75 J	220 J	
ALUMINUM	7500	25500	8767.37		5000 J	3340 J	2090 J	5790 J	8560 J
ANTIMONY	3.1	2	1.355	0.90 J	0.21 UJ	0.21 UJ	0.21 UJ	0.25 J	0.23 J
ARSENIC	0.39	9.79	8.9	3	1.1 U	0.83 U	1.5	2.1	2.6
BARIUM	1500	48	202.48	69.9 J	20.1 J	14.1 J	152 J	196 J	41 J
BERYLLIUM	15		0.46	1.2	0.34 U	0.13 U	0.14 U	0.54 U	0.79 U
CADMIUM	3.7	0.99	1.95	**2.4**	0.42 J	0.32 J	0.35 J	0.69	0.83
CALCIUM			13900	2620	884	664	737	942	1450

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE;
J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 A
SEDIMENT ANALYTICAL RESULTS – JANUARY 2000
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 6 OF 6

SAMPLE_ID				SD11-137R-NSD-012000	SD11-139R-NSD-011900	SD11-140R-NSD-012000	SD11-141R-NSD-011900	SD11-142R-NSD-011900	SD11-143R-NSD-012000
LOCATION_ID				SD11-137	SD11-139	SD11-140	SD11-141	SD11-142	SD11-143
TOP_DEPTH									
BOTTOM_DEPTH									
SAMPLE_DATE				01/20/00	01/19/00	01/20/00	01/19/00	01/19/00	01/20/00
SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SITE	**HHBMK**	**ECOBMK**	**BKG**	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
CHROMIUM	210	43.4	11.92	28.4	8	5.7	7.8	11.2	16
COPPER	310	31.6	53.3	36.5 J	7.9 J	8.2 J	5.8 J	19.8 J	29.1 J
IRON	5500	20000	24000	13100 J	6330 J	5560 J	5420 J	8450 J	12000 J
LEAD	400	35.8	200.86	**272 J**	45.2 J	32.5 J	39.2 J	131 J	181 J
MAGNESIUM			1683.03	2160 J	928 J	887 J	434 J	942 J	1300 J
MANGANESE	180	460	3690	244 J	69.9 J	97.8 J	182 J	220 J	357 J
MERCURY	2.3	0.18	0.28	0.19 U	0.10 U	0.07 U	0.06 U	**0.29**	**0.32**
NICKEL	160	22.7	11.71	12.4	3.2 J	2.3 J	2 J	6.5	10
POTASSIUM			603.24	440	223	185	181	280	327
VANADIUM	7.8	57	38.18	**47.9**	10.9	9.6	9.1	23.5	29.9
ZINC	2300	121	549	223 J	38.3 J	56.4 J	58.8 J	93.3 J	158 J
TOTAL ORGANIC CARBON		10000		85300 J	31700 J	25700 J	8810 J	46200 J	69300 J
SEM/AVS				2.4917	0.5829	0.3973	2.6384	2.7795	3.094

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE;
J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 B
SEDIMENT ANALYTICAL RESULTS – JANUARY 2004
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 3

FRACTION (UNITS)	SAMPLE_ID / LOCATION_ID / SAMPLE_DATE / SACODE / SITE	HHBMK	ECOBMK	BKG	AOC60C-SD01-AVG / AOC60C-SD01 / 01/12/04 / AVG / RIA 060	AOC60C-SD02 / AOC60C-SD02 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD03 / AOC60C-SD03 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD04 / AOC60C-SD04 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD05 / AOC60C-SD05 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD06 / AOC60C-SD06 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD07 / AOC60C-SD07 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD08 / AOC60C-SD08 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD09 / AOC60C-SD09 / 01/12/04 / NORMAL / RIA 060	AOC60C-SD10 / AOC60C-SD10 / 01/12/04 / NORMAL / RIA 060
SEMIVOLATILES (UG/KG)	2-METHYLNAPHTHALENE	5600	65		25 U	24 U	24 U	23 U	23 U	28 U	10 J	27 U	23 U	25 U
	ACENAPHTHENE	370000	150	83	10.4 J	24 U	15 J	23 U	23 U	8 J	47	27 U	7.9 J	25 U
	ACENAPHTHYLENE	370000	150	257.92	25 U	24 U	24 U	8.7 J	23 U	15 J	51	39	46	25 U
	ANTHRACENE	2200000	57	435.6	14.2 J	6.5 J	29	7.6 J	23 U	30	110	27 J	43	25 U
	BENZO(A)ANTHRACENE	150	108	1400	29.2 J	46	130	23	23 U	110	370	62	110	25 U
	BENZO(A)PYRENE	15	150	3446.5	29.8 J	50	150	29	23 U	110	390	68	120	25 U
	BENZO(B)FLUORANTHENE	150	1800	2000	43.5 J	86	230	40	6.7 J	180	560	80	150	25 U
	BENZO(G,H,I)PERYLENE	230000	170	374.77	24.8	34	99	26	23 U	110	300	55	100	25 U
	BENZO(K)FLUORANTHENE	1500	240	1100	20.2	32	81	13 J	23 U	63	180	28	53	25 U
	CHRYSENE	15000	166	1700	37.8 J	60	160	33	23 U	140	470	100	140	25 U
	DIBENZO(A,H)ANTHRACENE	15	33	190	7.65 J	8.3 J	25	5.8 J	23 U	29	77	15 J	27	25 U
	FLUORANTHENE	230000	420	3000	78.5 J	100	270	39	8.5 J	210	730	83	190	25 U
	FLUORENE	270000	77.4	130	11.8 J	24 U	17 J	23 U	23 U	11 J	48	8.8 J	13 J	25 U
	HIGH MOLECULAR WEIGHT PAHS				372.15 J	541.3 J	1495	276.8 J	23.1 J	1282	4157	659 J	1200	25 U
	INDENO(1,2,3-CD)PYRENE	150	200	490	28.2	40	110	26	23 U	120	380	58	110	25 U

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED;
UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 B
SEDIMENT ANALYTICAL RESULTS – JANUARY 2004
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 3

FRACTION (UNITS)	SAMPLE_ID	HHBMK	ECOBMK	BKG	AOC60C-SD01-AVG	AOC60C-SD02	AOC60C-SD03	AOC60C-SD04	AOC60C-SD05	AOC60C-SD06	AOC60C-SD07	AOC60C-SD08	AOC60C-SD09	AOC60C-SD10
	LOCATION_ID				AOC60C-SD01	AOC60C-SD02	AOC60C-SD03	AOC60C-SD04	AOC60C-SD05	AOC60C-SD06	AOC60C-SD07	AOC60C-SD08	AOC60C-SD09	AOC60C-SD10
	SAMPLE_DATE				01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04
	SACODE				AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
	SITE				RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060
	LOW MOLECULAR WEIGHT PAHS				101.2 J	36.5 J	201 J	38.3 J	23 U	158 J	685 J	154.2 J	238.6 J	25 U
	NAPHTHALENE	5600	176		10.2 J	24 U	24 U	23 U	23 U	28 U	19 J	8.4 J	8.7 J	25 U
	PHENANTHRENE	370000	204	1400	54.6 J	30	140	22 J	23 U	94	400	71	120	25 U
	PYRENE	230000	195	2300	72.5 J	85	240	42	7.9 J	210	700	110	200	25 U
	TOTAL PAHS		1610	14819	473.35 J	577.8 J	1696 J	315.1 J	23.1 J	1440 J	4842 J	813.2 J	1438.6 J	25 U
METALS (MG/KG)	ALUMINUM	7500	25500	8767.4	3050	5300	2000	4200	8700	4500	5100	5800	4200	2700
	ANTIMONY	3.1	2	1.355	**4.75**	**27**	**17**	0.76 J	5.5 U	6.7 U	7 U	0.84 J	5.5 U	6 U
	ARSENIC	0.39	9.79	8.9	0.575	0.44 J	2.1	0.62 J	0.5 J	0.71 J	2.2 MSA	0.83 U	1	0.35 J
	BARIUM	1500	48	202.48	15.5 J	47	12 J	22 J	35	22 J	23 J	39	11 J	12 J
	BERYLLIUM	15		0.46	0.23 J	0.48 J	0.22 J	0.29 J	0.57 J	0.5 J	0.37 J	0.46 J	0.31 J	0.27 J
	CADMIUM	3.7	0.99	1.95	0.755 U	0.72 U	0.2 J	0.7 U	0.69 U	0.2 J	0.88 U	0.83 U	0.68 U	0.76 U
	CALCIUM			13900	360 J	550	220 J	610	530	400 J	820	780	440	640
	CHROMIUM	210	43.4	11.92	5.45	8.6	6.1	6.1	16	6.9	9.3	7.4	6.4	4.4
	COBALT	900	50	25.7	3.55 J	6.2 J	2.6 J	3.3 J	8.7	4 J	3.2 J	3.5 J	3.1 J	3 J
	COPPER	310	31.6	53.3	7.35	8.9	9.4	6.7	13	7.8	12	6.1	6.8	3.8
	IRON	5500	20000	24000	6350	9500	7500	7200	14000	8800	8400	7200	8000	5700
	LEAD	400	35.8	200.86	10.8	8.2	32	11	8.3	34	120	12	14	6.8

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED;
UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 B
SEDIMENT ANALYTICAL RESULTS – JANUARY 2004
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 3

FRACTION (UNITS)	SAMPLE_ID	HHBMK	ECOBMK	BKG	AOC60C-SD01-AVG	AOC60C-SD02	AOC60C-SD03	AOC60C-SD04	AOC60C-SD05	AOC60C-SD06	AOC60C-SD07	AOC60C-SD08	AOC60C-SD09	AOC60C-SD10
	LOCATION_ID				AOC60C-SD01	AOC60C-SD02	AOC60C-SD03	AOC60C-SD04	AOC60C-SD05	AOC60C-SD06	AOC60C-SD07	AOC60C-SD08	AOC60C-SD09	AOC60C-SD10
	SAMPLE_DATE				01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04	01/12/04
	SACODE				AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
	SITE				RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060	RIA 060
	MAGNESIUM			1683	1200	2100	880	1500	3400	1500	1200	1800	1500	1100
	MANGANESE	180	460	3690	115	180	79	92	320	130	120	130	110	100
	MERCURY	2.3	0.18	0.28	0.0174 J	0.0048 J	0.0051 J	0.0079 J	0.0052 J	0.013 J	0.056 J	0.013 J	0.0079 J	0.062 U
	NICKEL	160	22.7	11.71	4.8 J	8.5	3.7 J	5.6	11	5.6 J	5.9 J	4.8 J	4.9 J	3.2 J
	POTASSIUM			603.24	245 J	430	300 J	310 J	510	350 J	260 J	550	200 J	250 J
	SELENIUM	39	1	0.6675	0.755 U	0.72 U	0.18 J	0.16 J	0.69 U	0.84 U	0.33 J	0.83 U	0.16 J	0.15 J
	SILVER	39	0.5	0.2	0.32 J	2 U	0.37 J	2 U	1.9 U	2.3 U	2.5 U	2.3 U	1.9 U	2.1 U
METALS (MG/KG) (cont.)	SODIUM			2180	150 J	120 J	85 J	180 J	120 J	110 J	120 J	130 J	100 J	200 J
	VANADIUM	7.8	57	38.18	10.4	16	12	9.9	25	17	23	13	9.9	9.2
	ZINC	2300	121	549	23.5	33	29	24	49	43	36	28	36	17
MISCELLANEOUS PARAMETERS (%)	PERCENT MOISTURE				19.8	16.6	15.3	14.9	15.2	28.9	33.3	27.6	15.3	20.8

GREY SHADING –DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED;
UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 C
SEDIMENT ANALYTICAL RESULTS – DECEMBER 2006
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 3

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	SAMPLE_ID				ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	LOCATION_ID				ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	TOP_DEPTH																					
	BOTTOM_DEPTH																					
	SAMPLE_DATE				12/12/06	12/12/06	12/12/06	12/13/06	12/13/06	12/13/06	12/13/06	12/13/06	12/14/06	12/14/06	12/14/06	12/14/06	12/12/06	12/12/06	12/12/06	12/12/06	12/12/06	12/12/06
	SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
	SITE				East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
VOLATILES (UG/KG)	2-BUTANONE	2200000	270	330	21	14	6 U	11 U	6.9 U	11 U	8.4	5.7 U	16	7.8 J	8.2 U	4.7 U	15	97	20	13 U	7.4 J	6.7 U
	4-ISOPROPYLTOLUENE				3.4	1.6 U	1.2 U	2.3 U	1.4 U	2.2 U	1.6 U	1.1 U	1.7 U	1.6 U	1.6 U	0.9 U	1.6 U	3.6 U	1.5 U	2.6 U	2.3 U	1.6
	ACETONE	1400000	9	416.8	86	65	15	23	21	11	56	8.6	84	44	8.2 U	4.7 U	48	338	74	15	49	25
	CARBON DISULFIDE	36000	0.85		2 U	1.6 U	1.2 U	2.3 U	1.4 U	2.2 U	1.6 U	1.1 U	1.7 U	1.6 U	1.6 U	0.9 U	1.6 U	3.8	2.2	2.6 U	1.6 J	1.3 U
	METHYLENE CHLORIDE	9100	370	21	5 U	4.1 U	3.1 U	9 U	58	11 U	57	5.7 U	8.7 U	7.9 U	8.2 U	4.7 U	4 U	9 U	3.8 U	6.5 U	5.8 U	3.2 U
	TETRACHLOROETHENE	480	410	2.6	3.9 U	3.3 U	2.5 U	4.6 U	2.8 U	4.3 U	3.2 U	2.3 U	3.5 U	3.2 U	3.3 U	1.9 U	3.2 U	7.1 U	3 U	7.8	4.7 U	2.7 U
	TOTAL CHLORINATED ETHENES				2.5 U	2 U	1.5 U	2.9 U	1.8 U	2.7 U	2 U	NA	NA	NA	NA	NA	2 U	4.5 U	1.8	7.8	2.9 U	1.6 U
	TOTAL CHLORINATED VOCS				2.3 U	1.8 U	1.4 U	2.8 U	58	2.7 U	57	NA	NA	NA	NA	NA	1.8 U	4.1 U	1.8	7.8	2.6 U	1.5 U
	TRICHLOROETHENE	53	220		2 U	1.6 U	1.2 U	2.3 U	1.4 U	2.2 U	1.6 U	1.1 U	1.7 U	1.6 U	1.6 U	0.9 U	1.6 U	3.6 U	1.8	2.6 U	2.3 U	1.3 U
SEMIVOLATILES (UG/KG)	ACENAPHTHENE	370000	150	83	240 U	240 U	180 U	200 U	170 U	190 U	170 U	160 U	220 U	200 U	210 U	150 U	210 J	350 U	220 U	200 U	250 U	16 U
	ANTHRACENE	2200000	57	435.6	127 J	240 U	180 U	200 U	170 U	190 U	192	116 J	146 J	200 U	210 U	76 J		350 U	220 U	200 U	146 J	13 J
	BENZO(A)ANTHRACENE	150	108	1400	433	275	238	343	136 J	166 J	564	389	495	221	300	313		573	306	313	513	57
	BENZO(A)PYRENE	15	150	3447	395	272	203	347	133 J	176 J	507	374	515	227	366	355	1460	594	330	315	481	65
	BENZO(B)FLUORANTHENE	150	1800	2000	706	619	506	588	184	222	833	669	878	452	738	682		1100	667	586	866	121
	BENZO(G,H,I)PERYLENE	230000	170	374.8	204 J	177 J	140 J	138 J	170 U	190 U	111 J	89 J	110 J	200 U	108 J	119 J		178 J	118 J	162 J	248 J	38
	BENZO(K)FLUORANTHENE	1500	240	1100	247	218 J	191	205	170 U	190 U	298	256	291	159 J	281	237	852	344 J	243	207	299	37
	BIS(2-ETHYLHEXYL)PHTHALATE	35000	890000	640	895	240 U	491	208	170 U	190 U	170 U	160 U	220 U	200 U	294	150 U	440	722	525	570	789	210 U
	CARBAZOLE	24000		226.1	240 U	240 U	180 U	200 U	170 U	190 U	170 U	87 J	220 U	200 U	210 U	150 U	261	350 U	220 U	200 U	250 U	210 U
	CHRYSENE	15000	166	1700	472	325	265	403	146 J	196	582	439	565	268	383	389	1690	739	377	352	553	67
	DIBENZO(A,H)ANTHRACENE	15	33	190	240 U	240 U	180 U	200 U	170 U	190 U	170 U	160 U	220 U	200 U	210 U	150 U	128 J	350 U	220 U	200 U	250 U	16 U
	FLUORANTHENE	230000	420	3000	1080	750	593	790	170 U	349	170 U	1030	1290	604	789	956		1430	700	775	1290	136
	FLUORENE	270000	77.4	130	240 U	240 U	180 U	200 U	170 U	190 U	170 U	160 U	220 U	200 U	210 U	150 U	195 J	350 U	220 U	200 U	250 U	16 U
	HIGH MOLECULAR WEIGHT PAHS				4682 J	3397 J	2852 J	3597 J	825 J	1463 J	3815 J	NA	NA	NA	NA	NA	14809 J	6227 J	3410 J	3505 J	5589 J	697
	INDENO(1,2,3-CD)PYRENE	150	200	490	316	271	217	228	170 U	99 J	133 J	105 J	132 J	200 U	120 J	136 J		333 J	214 J	241	355	67

GREY SHADING-DETECTED; BLACK SHADING-BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; D-MS/MSD RECOVERY NONCOMPLIANCE; B-FIELD CONTAMINATION

TABLE 2-4 C
SEDIMENT ANALYTICAL RESULTS – DECEMBER 2006
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 3

FRACTION (UNITS)	SAMPLE_ID	HHBMK	ECOBMK	BKG	ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	LOCATION_ID				ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	TOP_DEPTH																					
	BOTTOM_DEPTH																					
	SAMPLE_DATE				12/12/06	12/12/06	12/12/06	12/13/06	12/13/06	12/13/06	12/13/06	12/13/06	12/14/06	12/14/06	12/14/06	12/14/06	12/12/06	12/12/06	12/12/06	12/12/06	12/12/06	12/12/06
	SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
	SITE				East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
	LOW MOLECULAR WEIGHT PAHS				669 J	277	147 J	373	195	160 U	913	NA	NA	NA	NA	NA	2752 J	544	210 J	272	585 J	72 J
	PENTACHLOROPHENOL	3000			67 U	68 U	49 U	57 U	46 U	52 U	48 U	310 U	410 U	276 J	390 U	914	64 U	98 U	63 U	58 U	69 U	59 U
	PHENANTHRENE	370000	204	1400	542	277	147 J	373	195	190 U	721	613	691	268	344	448	[redacted]	544	210 J	272	439	59
	PYRENE	230000	195	2300	829	490	499	555	226	255	787	553	752	343	465	635	2220	936	455	554	984	109
	TOTAL PAHS		1610	14819	5351 J	3674 J	2999 J	3970 J	1020 J	1463 J	4728 J	4633 J	5865 J	2542 J	3894 J	4346 J	[redacted]	6771 J	3620 J	3777 J	6174 J	769 J
HERBICIDES (UG/KG)	2,4-D	69000			156 D	127 D	49 U	57 U	46 U	52 U	48 U	45 U	61 U	55 U	59 U	41 U	134 D	268 D	63 U	186 D	324 D	59 U
	2,4-DB	49000			67 U	68 U	49 U	138 D	46 U	52 U	48 U	45 U	61 U	55 U	59 U	41 U	64 U	341 D	63 U	58 U	69 U	59 U
	DINOSEB	6100			67 U	68 U	49 U	57 U	46 U	52 U	48 U	45 U	115 D	195 D	169 D	139 D	64 U	98 U	63 U	58 U	69 U	59 U
	PENTACHLOROPHENOL	3000			NA	NA	NA	NA	NA	NA	NA	45 U	61 U	55 U	59 U	191	NA	NA	NA	NA	NA	NA
PESTICIDES/PCBS (UG/KG)	4,4'-DDD	2400	4.88	730	50	43	28	41	15 D	54	54	12	55	30	42	168	24	181	419	192	188	4 U
	4,4'-DDE	1700	3.16	234.3	6 U	7 U	4 U	5 U	6 U	7 U	9	6 U	10	7 U	8 U	15	7 U	43	78 D	28	18	4 U
	4,4'-DDT	1700	4.16	290	8	59	4 U	53 D	6 U	17 D	38 D	25	22	14	24 D	60 U	7 U	16 D	15	16 D	17 D	4 U
	ALPHA-BHC	90	6		6 U	7 U	4 U	5 U	6 U	7 U	6 U	6 U	8 U	7 U	8 U	22	7 U	9 U	8 U	7 U	9 U	4 U
	ALPHA-CHLORDANE	1620	3.24	12	6 U	7 U	4 U	**20 D**	6 U	7 U	6 U	6 U	8 U	7 U	**23 D**	6 U	7 U	9 U	8 U	7 U	9 U	4 U
	AROCLOR-1248	220	59.8		33 U	41 U	21 U	29 U	9 U	10 U	10 U	58	12 U	11 U	12 U	9 U	39 U	50 U	44 U	39 U	51 U	24 U
	AROCLOR-1260	220	59.8	230	50	164	36	[redacted]	97	112	180	68	134	77	121	[redacted]	108	114 D	78	83	93	24 U
	DIELDRIN	30	1.9	17	6 U	7 U	4 U	17 D	6 U	7 U	6 U	6 U	8 U	7 U	8 U	[redacted]	7 U	9 U	8 U	7 U	9 U	4 U
	ENDRIN ALDEHYDE	1800	2.22	11	6 U		4 U	5 U	6 U	7 U	6 U	6 U	8 U	7 U	8 U	6 U	7 U	9 U	8 U	7 U	9 U	4 U
	GAMMA-CHLORDANE	1620	3.24	14	6 U	8 D	4 U	[redacted]	6 U	9 D	6 U	6 U	8 D	7 D	12 D	6 U	14	9 U	8 U	11 D	12 D	4 U
	TOTAL AROCLOR	220	59.8		50	164	36	[redacted]	97	112	180	126	134	77	121	[redacted]	108	114	78	83	93	24 U
	TOTAL DDD/DDE/DDT		5.28		58	102	28	94	15	71	101	NA	NA	NA	NA	NA	24	240	512	236	223	4 U
METALS (MG/KG)	ALUMINUM	7500	25500	8767	5200	4580	3990	5520	5190	6070	[redacted]	4830	[redacted]			6140	[redacted]		5540	4990	8080	3080
	ARSENIC	0.39	9.79	8.9	1.9	1.6	1.2	1.4	0.98 B	1.1	2.2	1	3.3	2.3	3	2	8.4	7.1	2.6	1.9	2.6	1.8
	BARIUM	1500	48	202.5	28.3	19.9 B	15.8 B	19.1 B	15.3 B	16.3 B	46.3	31.1	90.3	[redacted]	36.2	23.2	51	71.3	23.1	17.6 B	30.8	13.6 B
	BERYLLIUM	15		0.46	0.53 B	0.38 B	0.37 B	0.53 B	0.45 B	0.49	0.84	0.38 B	1.1	0.81	0.95	0.45	0.70	1.2	0.47 B	0.46 B	0.64 B	0.31 B
	CADMIUM	3.7	0.99	1.95	0.53 B	0.27 B	0.14 B	0.056 U	0.051 U	0.26 B	0.17 B	0.14 B	0.56 B	0.16 B	0.22 B	0.089 B	0.64	[redacted]	0.56	0.40 B	1.3	0.18 B

GREY SHADING-DETECTED; BLACK SHADING-BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; D-MS/MSD RECOVERY NONCOMPLIANCE; B-FIELD CONTAMINATION

TABLE 2-4 C
SEDIMENT ANALYTICAL RESULTS – DECEMBER 2006
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 3

FRACTION (UNITS)	SAMPLE_ID	HHBMK	ECOBMK	BKG	ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	LOCATION_ID				ESD-1000-SB-07	ESD-1100-SB-08	ESD-1300-SB-10	ESD-1400-SB-11	ESD-1500-SB-12	ESD-1600-SB-13	ESD-1700-SB-14	ESD-1800-SB-15	ESD-2500-SB-16	ESD-2600-SB-17	ESD-2700-SB-18	ESD-2800-SB-19	ESD-400-SB-01	ESD-500-SB-02	ESD-600-SB-03	ESD-700-SB-04	ESD-800-SB-05	ESD-900-SB-06
	TOP_DEPTH																					
	BOTTOM_DEPTH																					
	SAMPLE_DATE				12/12/06	12/12/06	12/12/06	12/13/06	12/13/06	12/13/06	12/13/06	12/13/06	12/14/06	12/14/06	12/14/06	12/14/06	12/12/06	12/12/06	12/12/06	12/12/06	12/12/06	12/12/06
	SACODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
	SITE				East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch	East Mat Drainage Ditch
	CALCIUM			13900	1250	1000	770	1150	1170	967	903	952	1860	1320	1620	1040	1550	1920	1200	1420	1760	1050
	CHROMIUM	210	43.4	11.92	9.4	9.4	9.2	9.4	7.2	8.7	10.2	5.9	16.7	11.2	17.4	11	14.1	25	9	9	13.6	4
	COBALT	900	50	25.7	2.9 B	3.1 B	2.5 B	2.9 B	3.4 B	2.9 B	6	2.8 B	5.6 B	5.1 B	4.9 B	3.7 B	9.9	7.6	5.1 B	3.8 B	5.3 B	2.6 B
	COPPER	310	31.6	53.3	12	8.1	6.6	8.4	6.7	8.9	12	6.5	[redacted]	16.8	22.4	12.1	25.7	45.1	16.9	17.2	24.3	4.8
	IRON	5500	20000	24000	6400	8700	5660	6840	9690	8170	14300	7800	13700	14800	12900	12000	16400	[redacted]	9050	7810	9760	6660
	LEAD	400	35.8	200.9	70.1	45	40.5	52.1	20.2	54.7	51.3	21	125	86	145	91.2	99.9	[redacted]	120	66.1	105	15.7
	MAGNESIUM			1683	1170	1520	1150	1430	1580	1550	2360	1460	1520	2150	1820	2080	2140	2100	1300	1220	2060	911
	MANGANESE	180	460	3690	175	107	70.3	82.3	111	91.3	214	102	173	202	219	203	230	360	142	78.3	107	193
	MERCURY	2.3	0.18	0.28	0.08	0.032 B	0.023 B	0.037	0.017 U	[redacted]	0.02 U	0.018 U	0.13	0.13	[redacted]		0.064	0.22	0.053	0.055	0.11	0.023 U
	NICKEL	160	22.7	11.71	5.4	5.8	4.4	5.1	5.1	5.4	8.6	4.8	9.8	8.6	10.6	8.5	12.7	16.3	7	6.2	9.6	3.3 B
	POTASSIUM			603.2	298 B	278 B	292 B	321 B	233 B	250 B	655	275 B	555 B	501 B	519 B	429 B	974	725	355 B	307 B	445 B	238 B
	SELENIUM	39	1	0.668	0.54 U	0.52 U	0.47 U	0.50 U	0.46 U	0.40 U	0.41 U	0.38 U	0.61 U	0.54 U	0.56 U	0.39 U	0.58 B	[redacted]	0.48 U	0.48 U	0.58 U	0.52 U
	SILVER	39	0.5	0.2	0.17 U	0.16 U	0.15 U	0.16 U	0.14 U	0.13 U	0.13 U	0.12 U	0.19 U	0.17 U	0.18 U	0.12 U	0.18 U	0.27 B	0.15 U	0.15 U	0.18 U	0.16 U
	THALLIUM	0.52			1 U	0.99 U	0.89 U	0.96 U	0.88 U	0.77 U	0.78 U	0.73 U	1.2 U	1 U	1.1 U	0.75 U	1.1 U	1.3 B	0.91 U	0.92 U	1.1 U	1 U
	VANADIUM	7.8	57	38.18	19.9	15.6	14.5	13.9	13.2	13.4	21.7	11.1	37.7	31.1	36.7	31.5	24.4	[redacted]	21.9	20.3	28.9	10.7
	ZINC	2300	121	549	80.5	63.2	41.7	31.8	26.3	37.5	53.4	22.5	122	83.5	115	95.5	178	303	94.8	119	152	69.9

GREY SHADING-DETECTED; BLACK SHADING-BACKGROUND AND AT LEAST 1 CRITERIA EXCEEDED; U-NOT DETECTED; UJ-DETECTION LIMIT APPROXIMATE; J-ESTIMATED VALUE; D-MS/MSD RECOVERY NONCOMPLIANCE; B-FIELD CONTAMINATION

TABLE 2-4 D
SEDIMENT ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 6

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	SRA-SD-105-0107	SRA-SD-109-0107	SRA-SD-110-0107-AVG	SRA-SD-111-0107	SRA-SD-112-0107
	SAMPLE_ID				SRA-SD-105	SRA-SD-109	SRA-SD-110	SRA-SD-111	SRA-SD-112
	LOCATION_ID				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SAMPLE_DATE				NORMAL	NORMAL	AVG	NORMAL	NORMAL
	SACODE				IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
VOLATILES (UG/KG)	1,2,4-TRICHLOROBENZENE	6200	9600		4 UJ	4 UJ	1.5 J	4 U	4 U
	2-BUTANONE	2200000	270	330	4 U	4 UJ	7 J	4 U	4 U
	ACETONE	1400000	9	416.84	70 J	4 UJ	15.5 J	4 UJ	26 J
	BTEX				1 J	45 J	3 J	4 U	4 U
	CIS-1,2-DICHLOROETHENE	4300	400		4 U	4 UJ	3	4 U	4 U
	ETHYLBENZENE	190000	89		1 J	6 J	1.5 J	4 U	4 U
	M+P-XYLENES	27000	25		4 U	26 J	4 U	4 U	4 U
	METHYLENE CHLORIDE	9100	370	21	4 U	8 J	4 U	4 U	4 U
	O-XYLENE	27000	160		1 J	7 J	1.5 J	4 U	4 U
	TETRACHLOROETHENE	480	410	2.6	4 U	10 J	56.5 J	4 U	49
	TOLUENE	520000	50	24.95	4 U	6 J	1.5 J	4 U	4 U
	TOTAL 1,2-DICHLOROETHENE	4300	250		4 U	4 UJ	3	4 U	4 U

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 D
SEDIMENT ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 6

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	SRA-SD-105-0107	SRA-SD-109-0107	SRA-SD-110-0107-AVG	SRA-SD-111-0107	SRA-SD-112-0107
	SAMPLE_ID				SRA-SD-105	SRA-SD-109	SRA-SD-110	SRA-SD-111	SRA-SD-112
	LOCATION_ID				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SAMPLE_DATE				NORMAL	NORMAL	AVG	NORMAL	NORMAL
	SACODE				IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	TOTAL CHLORINATED ETHENES				3.2 U	28 J	89.5 J	3.2 U	49
	TOTAL CHLORINATED VOCS				3.8 UJ	36 J	91 J	3.8 U	49
	TOTAL XYLENES	27000	160		5 U	33 J	4.5 U	4 U	4 U
	TRICHLOROETHENE	53	220		0.7 U	18 J	30 J	0.8 U	0.8 U
SEMIVOLATILES (UG/KG)	2-METHYLPHENOL	310000	12		4.6 J	4.6 UJ	4.55 UJ	4.8 UJ	4.4 UJ
	ACENAPHTHENE	370000	150	83	17 J	6.6	5.05	4.8 U	4.4 U
	ACENAPHTHYLENE	370000	150	257.92	22	13	8.6 J	11	4.4 U
	ANTHRACENE	2200000	57	435.6	84	24	15.4 J	23	4.4 U
	BENZO(A)ANTHRACENE	150	108	1400	190 J	71	43 J	69	9.6
	BENZO(A)PYRENE	15	150	3446.52	200 J	77	47.5 J	78	12
	BENZO(B)FLUORANTHENE	150	1800	2000	310 J	120	84 J	130	21
	BENZO(G,H,I)PERYLENE	230000	170	374.77	83 J	40	26.5 J	37	4.4 U

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 D
SEDIMENT ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 6

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	SRA-SD-105-0107	SRA-SD-109-0107	SRA-SD-110-0107-AVG	SRA-SD-111-0107	SRA-SD-112-0107
	SAMPLE_ID				SRA-SD-105	SRA-SD-109	SRA-SD-110	SRA-SD-111	SRA-SD-112
	LOCATION_ID				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SAMPLE_DATE				NORMAL	NORMAL	AVG	NORMAL	NORMAL
	SACODE				IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	BENZO(K)FLUORANTHENE	1500	240	1100	110	52	27 J	36	7.1
	BIS(2-ETHYLHEXYL)PHTHALATE	35000	890000	640	850	460 U	480 U	480 U	440 U
	CHRYSENE	15000	166	1700	210 J	96	47.5 J	82	13
	DIBENZO(A,H)ANTHRACENE	15	33	190	36	16	9 J	14	4.4 U
	FLUORANTHENE	230000	420	3000	470	200	116 J	180	27
	FLUORENE	270000	77.4	130	16	7.6	5	5.9	4.4 U
	HIGH MOLECULAR WEIGHT PAHS				2046 J	897 J	527 J	827 J	121.4 J
	INDENO(1,2,3-CD)PYRENE	150	200	490	97 J	45	27 J	41	5.7
	LOW MOLECULAR WEIGHT PAHS				383.9 J	106.2 J	88.55 J	100.9 J	11 J
	NAPHTHALENE	5600	176		4.9	4 UJ	4 UJ	4 UJ	4 UJ
	PHENANTHRENE	370000	204	1400	240 J	55	54.5 J	61	11
	PYRENE	230000	195	2300	340 J	180 J	99.5 J	160 J	26 J

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 D
SEDIMENT ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 6

	SAMPLE_ID				SRA-SD-105-0107	SRA-SD-109-0107	SRA-SD-110-0107-AVG	SRA-SD-111-0107	SRA-SD-112-0107
	LOCATION_ID				SRA-SD-105	SRA-SD-109	SRA-SD-110	SRA-SD-111	SRA-SD-112
	SAMPLE_DATE				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SACODE				NORMAL	NORMAL	AVG	NORMAL	NORMAL
FRACTION (UNITS)	**SITE**	**HHBMK**	**ECOBMK**	**BKG**	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	TOTAL PAHS		1610	14819	2429.9 J	1003.2 J	615.55 J	927.9 J	132.4 J
PESTICIDES/PCBS (UG/KG)	4,4'-DDD	2400	4.88	730	16 J	21 J	290 J	15	3.1
	4,4'-DDE	1700	3.16	234.28	2.3 J	4.8 J	97.5 J	3.4 J	11
	4,4'-DDT	1700	4.16	290	61	2.3 U	34.5 U	2.4 U	5.2
	ALPHA-CHLORDANE	1620	3.24	12	6.6 J	1.2 U	17.5 U	2.5 J	1.2 U
	AROCLOR-1260	220	59.8	230	48	120	71.5 J	26 J	22 U
	DIELDRIN	30	1.9	17	2.2 U	2.6 J	34.5 U	2.4 U	2.2 U
	GAMMA-CHLORDANE	1620	3.24	14	4.1 J	1.2 U	17.5 U	2.1 J	1.2 U
	TOTAL AROCLOR	220	59.8		48	120	71.5 J	26 J	22 U
	TOTAL DDD/DDE/DDT		5.28		79.3 J	25.8 J	387.5 J	18.4 J	19.3
METALS (MG/KG)	ALUMINUM	7500	25500	8767.37	4310	7720	6140	6930	8400
	ARSENIC	0.39	9.79	8.9	1.01	0.955	2.32	1.12	2.11
	BARIUM	1500	48	202.48	15.5	22.9	18.3	18.4	19.8

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 D
SEDIMENT ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 5 OF 6

FRACTION (UNITS)	SAMPLE_ID	HHBMK	ECOBMK	BKG	SRA-SD-105-0107	SRA-SD-109-0107	SRA-SD-110-0107-AVG	SRA-SD-111-0107	SRA-SD-112-0107
	LOCATION_ID				SRA-SD-105	SRA-SD-109	SRA-SD-110	SRA-SD-111	SRA-SD-112
	SAMPLE_DATE				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SACODE				NORMAL	NORMAL	AVG	NORMAL	NORMAL
	SITE				IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	BERYLLIUM	15		0.46	0.296 J	0.702 J	0.491 J	0.433 J	0.479 J
	CADMIUM	3.7	0.99	1.95	0.454 J	0.463 J	0.343 J	0.553	0.426 J
	CALCIUM			13900	1100	1460	1400	2640	1330
	CHROMIUM	210	43.4	11.92	6.58 J	8.53 J	7.07 J	11.2 J	10.2 J
	COBALT	900	50	25.7	1.87 J	2.54 J	5.78	4.51	3.36 J
	COPPER	310	31.6	53.3	6.28	5.64	5.84	8.92	16.6
	IRON	5500	20000	24000	6230	7040	6940	13900	14400
	LEAD	400	35.8	200.86	26.5	24.8	22.4	14.8	40.5
	MAGNESIUM			1683.03	1130	1310	1430	2240	2290
	MANGANESE	180	460	3690	93.2 J	98.5 J	102 J	299 J	155 J
	MERCURY	2.3	0.18	0.28	0.0126 J	0.00738 U	0.0254 J	0.00719 U	0.0106 J
	NICKEL	160	22.7	11.71	5.11 J	5.66 J	5.56 J	8 J	7.1 J
	POTASSIUM			603.24	227	319	275 J	313	301
	SELENIUM	39	1	0.6675	0.133 J	0.252 J	0.23 J	0.141 J	0.351 J

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE;
J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 D
SEDIMENT ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 6 OF 6

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	SRA-SD-105-0107	SRA-SD-109-0107	SRA-SD-110-0107-AVG	SRA-SD-111-0107	SRA-SD-112-0107
	SAMPLE_ID				SRA-SD-105	SRA-SD-109	SRA-SD-110	SRA-SD-111	SRA-SD-112
	LOCATION_ID				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SAMPLE_DATE				NORMAL	NORMAL	AVG	NORMAL	NORMAL
	SACODE				IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	SILVER	39	0.5	0.2	0.0582 J	0.0671 J	0.0642 J	0.0745 J	0.0669 U
	SODIUM			2180	50 J	19.8 U	19.6 U	15.9 U	59.7 J
	THALLIUM	0.52			0.0185 J	0.0366 J	0.0352 J	0.0182 J	0.034 J
	VANADIUM	7.8	57	38.18	12.1	18.9	15	19.1	19.6
	ZINC	2300	121	549	57.2	40.6	31	47.9	54.8
MISCELLANEOUS PARAMETERS (%)	TOTAL ORGANIC CARBON				1.3 U	1.4	1.35 U	1.3 U	1.7 U

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 E
SEDIMENT ANALYTICAL RESULTS – DECEMBER 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 2

FRACTION (UNITS)	SAMPLE_ID / LOCATION_ID / SAMPLE_DATE / SACODE / SITE	HHBMK	ECOBMK	BKG	C-EMD-SB-04 / EMDC-SB01 / 12/11/07 / NORMAL / RIA 060	C-EMD-SB-05-AVG / EMDC-SB02 / 12/11/07 / AVG / RIA 060	C-EMD-SB-06 / EMDC-SB03 / 12/11/07 / NORMAL / RIA 060
SEMIVOLATILES (UG/KG)	2-METHYLNAPHTHALENE	5600	65		41 U	53.5	28 U
	ACENAPHTHENE	370000	150	83	14 J	35 J	28 U
	ACENAPHTHYLENE	370000	150	257.92	41 U	46.5 U	39
	ANTHRACENE	2200000	57	435.6	78	97.5	24 J
	BENZO(A)ANTHRACENE	150	108	1400	310	362.5	80
	BENZO(A)PYRENE	15	150	3446.52	292	360	92
	BENZO(B)FLUORANTHENE	150	1800	2000	426	516	114
	BENZO(G,H,I)PERYLENE	230000	170	374.77	196	265.5	81
	BENZO(K)FLUORANTHENE	1500	240	1100	134	182.5	37
	CHRYSENE	15000	166	1700	333	403.5	145
	DIBENZO(A,H)ANTHRACENE	15	33	190	44	58.5	18 J
	FLUORANTHENE	230000	420	3000	670	772.5	97
	FLUORENE	270000	77.4	130	17 J	47 J	28 U
	HIGH MOLECULAR WEIGHT PAHS				3194	4035	927 J
	INDENO(1,2,3-CD)PYRENE	150	200	490	211	280.5	78

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 E
SEDIMENT ANALYTICAL RESULTS – DECEMBER 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 2

FRACTION (UNITS)	SAMPLE_ID	HHBMK	ECOBMK	BKG	C-EMD-SB-04	C-EMD-SB-05-AVG	C-EMD-SB-06
	LOCATION_ID				EMDC-SB01	EMDC-SB02	EMDC-SB03
	SAMPLE_DATE				12/11/07	12/11/07	12/11/07
	SITE				RIA 060	RIA 060	RIA 060
	SACODE				NORMAL	AVG	NORMAL
	LOW MOLECULAR WEIGHT PAHS				418 J	666.5 J	163 J
	NAPHTHALENE	5600	176		41 U	26 J	16 J
	PHENANTHRENE	370000	204	1400	309	407.5	84
	PYRENE	230000	195	2300	578	833.5	185
	TOTAL PAHS		1610	14819	3612 J	4701.5 J	1090 J

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 F
SURFACE WATER ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 5

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	SRA-SW-105-0107	SRA-SW-106-0107	SRA-SW-107-0107-AVG	SRA-SW-109-0107	SRA-SW-110-0107-AVG	SRA-SW-111-0107
	SAMPLE_ID				SRA-SW-105	SRA-SW-106	SRA-SW-107	SRA-SW-109	SRA-SW-110	SRA-SW-111
	LOCATION_ID				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SAMPLE_DATE				NORMAL	NORMAL	AVG	NORMAL	AVG	NORMAL
	SACODE				IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
VOLATILES (UG/L)	1,1,2-TRICHLOROTRIFLUOROETHANE				0.5 U	0.5 U	0.29 J	0.5 U	0.5 U	0.5 U
	BTEX				0.5 U	0.5 U	0.5 U	0.82	0.5 U	0.5 U
	CIS-1,2-DICHLOROETHENE	6.1	590		0.5 U	0.5 U	0.82	3.7	12	0.5 U
	METHYLENE CHLORIDE	4.3	2200	2	0.5 U	0.5 U	0.495	0.5 U	0.5 U	0.5 U
	TETRACHLOROETHENE	0.1	98		0.42 J	0.5 U	4.25	6	20	0.5 U
	TOLUENE	230	9.8		0.5 U	0.5 U	0.5 U	0.82	0.5 U	0.5 U
	TOTAL 1,2-DICHLOROETHENE	6.1	20000		0.5 U	0.5 U	0.82	3.7	12	0.5 U
	TOTAL CHLORINATED ETHENES				0.42 J	0.5 U	6.09	14 J	44.7	0.5 U
	TOTAL CHLORINATED VOCS				0.42 J	0.47 UJ	6.875 J	14 J	44.7 J	0.47 UJ
	TRICHLOROETHENE	0.028	21900		0.5 U	0.5 U	1.02	3.9	11.5	0.5 U
	VINYL CHLORIDE	0.02			0.5 U	0.5 U	0.5 U	0.4 J	1.2	0.5 U

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 F
SURFACE WATER ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 5

	SAMPLE_ID				SRA-SW-105-0107	SRA-SW-106-0107	SRA-SW-107-0107-AVG	SRA-SW-109-0107	SRA-SW-110-0107-AVG	SRA-SW-111-0107
	LOCATION_ID				SRA-SW-105	SRA-SW-106	SRA-SW-107	SRA-SW-109	SRA-SW-110	SRA-SW-111
	SAMPLE_DATE				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SACODE				NORMAL	NORMAL	AVG	NORMAL	AVG	NORMAL
FRACTION (UNITS)	**SITE**	**HHBMK**	**ECOBMK**	**BKG**	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
SEMIVOLATILES (UG/L)	BENZO(A)ANTHRACENE	0.029	0.027	0.2	0.1 U	0.1 U	0.1	0.1 U	0.1 U	0.1 U
	BENZO(A)PYRENE	0.0029	0.014	0.2	0.1 U	0.1 U	0.16 J	0.1 U	0.1 U	0.1 U
	BENZO(B)FLUORANTHENE	0.029	0.6774	0.3	0.1 U	0.1 U	0.225 J	0.1 U	0.1 U	0.1 U
	BENZO(G,H,I)PERYLENE	150	0.4391	0.08	0.1 U	0.1 U	0.145 J	0.1 U	0.1 U	0.1 U
	BENZO(K)FLUORANTHENE	0.29	0.6415	0.3	0.1 U	0.1 U	0.095	0.1 U	0.1 U	0.1 U
	CHRYSENE	2.9	2.042	0.2	0.1 U	0.1 U	0.1	0.1 U	0.1 U	0.1 U
	FLUORANTHENE	150	7.109	0.3	0.1 U	0.1 U	0.085	0.1 U	0.1 U	0.1 U
	HIGH MOLECULAR WEIGHT PAHS				0.1 U	0.1 U	1.125 J	0.1 UJ	0.1 UJ	0.1 UJ
	INDENO(1,2,3-CD)PYRENE	0.029	0.275	0.07	0.1 U	0.1 U	**0.135 J**	0.1 U	0.1 U	0.1 U
	PYRENE	18	10.11	19	0.1 U	0.1 U	0.08	0.1 U	0.1 U	0.1 U
	TOTAL PAHS			23.06	0.1 U	0.1 U	1.125 J	0.1 UJ	0.1 UJ	0.1 UJ
PESTICIDES/PCBS (UG/L)	AROCLOR-1248	0.034	0.014		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34 J
	TOTAL AROCLOR	0.034			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34 J

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 F
SURFACE WATER ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 5

FRACTION (UNITS)	SITE	HHBMK	ECOBMK	BKG	SRA-SW-105-0107	SRA-SW-106-0107	SRA-SW-107-0107-AVG	SRA-SW-109-0107	SRA-SW-110-0107-AVG	SRA-SW-111-0107
	SAMPLE_ID				SRA-SW-105-0107	SRA-SW-106-0107	SRA-SW-107-0107-AVG	SRA-SW-109-0107	SRA-SW-110-0107-AVG	SRA-SW-111-0107
	LOCATION_ID				SRA-SW-105	SRA-SW-106	SRA-SW-107	SRA-SW-109	SRA-SW-110	SRA-SW-111
	SAMPLE_DATE				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SACODE				NORMAL	NORMAL	AVG	NORMAL	AVG	NORMAL
					IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
METALS (UG/L)	ALUMINUM	3600	87	727	302	689	427	138	130	
	ARSENIC	0.045	150		0.261 J	0.219 J	0.346 J	0.306 J	0.494 J	0.868 J
	BARIUM	730	4	62.16	14.5	21.9	11	41.4	3.22	27.6
	BERYLLIUM	7.3	5.3		0.0826 J	0.0692 J	0.0816 J	0.043 U	0.043 U	0.143 J
	CADMIUM	1.8	0.25		0.094 U	0.12 J	0.0719 J	0.094 U	0.094 U	0.158 J
	CALCIUM		116000	17000	8250	8940	5360	6380	6880	5650 J
	CHROMIUM	11	74	2.8	0.941 J	1.36	1.06	0.76 UJ	0.903 J	3.24 UJ
	COBALT	73	23	7.2	0.42 J	0.303 UJ	0.484 J	0.459 J	0.752 J	0.998 J
	IRON	2600	1000	34800	827	271	2510	2920	4380	9040
	LEAD	15	2.5	5.86	1.39 J	2.6 J	3.48 J	1.49 J	2.68 J	
	MAGNESIUM		82000	5120	2810	2600	2010	2570	2820	2940 J
	MANGANESE	88	120	1408.29	111	16.7	251	357	434	136
	NICKEL	73	52		1.42 J	2.47 J	1.33 J	0.869 UJ	0.877 UJ	2.28 J
	POTASSIUM		53000	6802.65	687	1040	539	604	460	487 J

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 F
SURFACE WATER ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 5

	SAMPLE_ID				SRA-SW-105-0107	SRA-SW-106-0107	SRA-SW-107-0107-AVG	SRA-SW-109-0107	SRA-SW-110-0107-AVG	SRA-SW-111-0107
	LOCATION_ID				SRA-SW-105	SRA-SW-106	SRA-SW-107	SRA-SW-109	SRA-SW-110	SRA-SW-111
	SAMPLE_DATE				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SACODE				NORMAL	NORMAL	AVG	NORMAL	AVG	NORMAL
FRACTION (UNITS)	**SITE**	**HHBMK**	**ECOBMK**	**BKG**	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	SELENIUM	18	5		0.149 J	0.11 UJ	0.14 J	0.11 UJ	0.104 J	0.11 U
	SODIUM		680000	163000	11300	18500	9560	9630	9810	7830 J
	VANADIUM	3.6	20		1.25 J	3.86	1.4 J	0.8 J	1.15 J	7.17
	ZINC	1100	120	54.6	32.6	14.7	15.7	14.6	16.6	36.4
DISSOLVED METALS (UG/L)	ALUMINUM	3600	87	437.3	215	[redacted]	163	38.9 J	33.6 J	34.2 J
	ARSENIC	0.045	150		0.206 J	0.225 J	0.214 J	0.203 J	0.502 J	0.174 UJ
	BARIUM	730	4	52.6	14.2	21.1	9.44	1.33	3.36	7.9
	BERYLLIUM	7.3	5.3		0.0567 J	0.0473 J	0.0518 J	0.043 U	0.043 U	0.043 U
	CALCIUM		116000	18406.45	8620	8500	5340	6350	7110	5430
	CHROMIUM	11	74		0.776 UJ	1.26	0.934 J	0.621 UJ	0.672 UJ	0.631 UJ
	COBALT	73	23	6.5	0.842 J	0.522 J	3.83	1.57 J	4.6	0.623 UJ
	IRON	2600	1000	22467.53	414 J	248 J	1380 J	1560 J	5090 J	435
	LEAD	15	2.5		0.487 UJ	2.08	1.53	0.347 UJ	0.514 J	0.128 J
	MAGNESIUM		82000	6319.35	2820	2400	1940	2520	2810	2730 J

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-4 F
SURFACE WATER ANALYTICAL RESULTS – JANUARY 2007
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 5 OF 5

	SAMPLE_ID				SRA-SW-105-0107	SRA-SW-106-0107	SRA-SW-107-0107-AVG	SRA-SW-109-0107	SRA-SW-110-0107-AVG	SRA-SW-111-0107
	LOCATION_ID				SRA-SW-105	SRA-SW-106	SRA-SW-107	SRA-SW-109	SRA-SW-110	SRA-SW-111
	SAMPLE_DATE				01/04/07	01/04/07	01/04/07	01/04/07	01/04/07	01/04/07
	SACODE				NORMAL	NORMAL	AVG	NORMAL	AVG	NORMAL
FRACTION (UNITS)	**SITE**	**HHBMK**	**ECOBMK**	**BKG**	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area	IR Site 11-Solvent Release Area
	MANGANESE	88	120	1782.47	106	16.7	254	386	558	88.8
	NICKEL	73	52		1.44 J	2.75 J	1.62 J	0.941 UJ	1.5 J	0.904 J
	POTASSIUM		53000	23881.87	716	949	506	489	462	307
	SELENIUM	18	5		0.123 J	0.192 J	0.11 UJ	0.11 UJ	0.094 J	0.199 J
	SODIUM		680000	76278.24	11200	17800	9540	9470	9480	7770 J
	VANADIUM	3.6	20		0.792 J	3.84	0.718 J	0.386 J	0.586 J	0.276 UJ
	ZINC	1100	120	14.05	32.2	14.7	16.3	13.7 U	12.4 U	8.71 UJ

GREY SHADING-DETECTED; BLACK SHADING – BACKGROUND AND AT LEAST 1 CRITERA EXCEEDED; U-NOT DETECTED; UJ-DETECTED LIMIT APPROXIMATE; J-ESTIMATED VALUE; R-REJECTED; NA-NOT ANALYZED

TABLE 2-5

**SUMMARY OF ECOLOGICAL RISK ASSESSMENT MEASUREMENT AND ASSESSMENT ENDPOINTS -
SURFACE SOIL AND SEDIMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 2**

Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)[(a)]	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Wetland Vertebrate Wildlife	No	No	Ingestion of surface water and sediment Ingestion of prey and vegetation	Adverse effects on the maintenance of wildlife populations and communities within the habitats present at AOC 60.	• Comparison of potential dietary exposures, calculated using concentrations of contaminants in surface water and sediment/hydric soil, to the results of laboratory toxicity studies in the literature that relate the dose of a compound in an oral exposure with an adverse response of a test population (avian or mammalian species).	A determination of no significant ecological risk can be made for these compounds at this site based on the removal of sample location SD11-138R.
Wetland Plants	No	No	Direct contact with sediment	Adverse effects on the survival, growth, and reproduction of plant communities.	• Comparison of concentrations of contaminants in the sediment/hydric soil to the literature-reported phytotoxicity screening values in surface soil.	The average sediment EPCs for chromium, lead, and zinc exceeded the available screening values. A determination of no significant ecological risk can be made for these compounds at this site based on the removal of sample location SD11-138R.

TABLE 2-5

**SUMMARY OF ECOLOGICAL RISK ASSESSMENT MEASUREMENT AND ASSESSMENT ENDPOINTS -
SURFACE SOIL AND SEDIMENT
AREA OF CONCERN 60 – EAST MAT DRAINAGE DITCH
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 2**

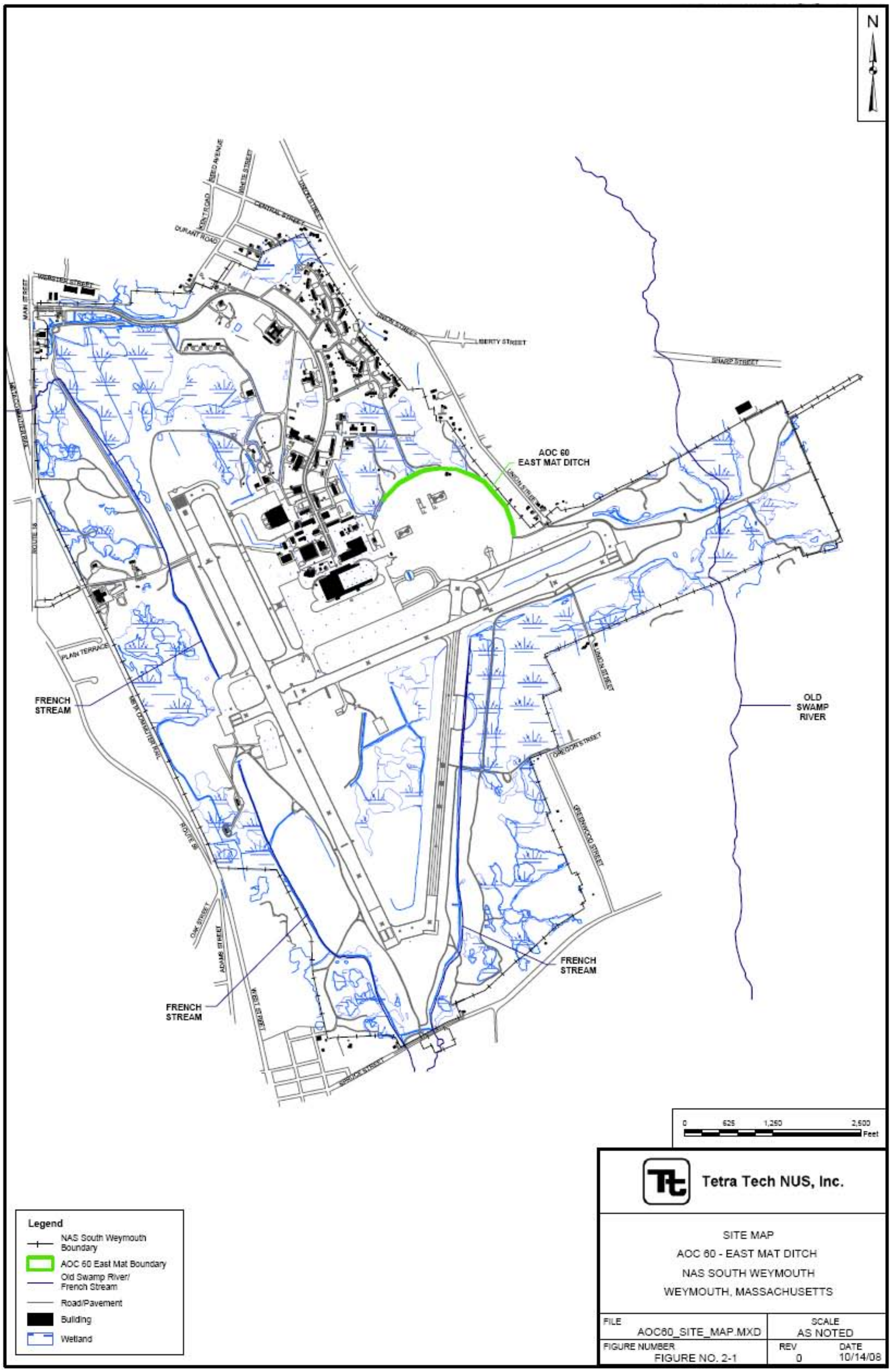
Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)[(a)]	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Aquatic Life	No	No	Direct contact with surface water and sediment	Adverse effects on the survival and maintenance of a well-balanced benthic macroinvertebrate, amphibian, and plant community structure and function.	• Comparison of concentrations of contaminants in the surface water to cronic and acute values and sediment/hydric soil to the literature-reported low and severe effect sediment screening values. • Evaluation of simultaneously extracted metals (SEM)/acid volatile sulfides (AVS) relationships to indicate potential bioavailability of divalent cationic metals in sediment.	A determination of no significant ecological risk can be made for these compounds at this site based on the removal of sample location SD11-138R.

SOURCE: Data from the Streamlined ERA (Stone & Webster, 2004).

NOTES:

(a) One state-listed threatened species, the Northern Harrier, occurs at and in the vicinity of the site; however, it is unlikely that they would use the terrestrial upland in and around the site for nesting. Further, it is not anticipated that this site will pose unacceptable ecological risk to this species. Future site activities, however, should adhere to state-mandated avoidance, protection, and mitigation measures based on the potential presence of this species. Two state-listed "species of special concern," the spotted turtle and the eastern box turtle, are known to occur at the Naval Air Station South Weymouth; however, despite extensive surveys, neither species has been located at or in the vicinity of the AOC 60.

COPC = Chemical of Potential Concern.


N
LIBERTY STREET
SWAMP STREET
AOC 60
EAST MAT DITCH
FRENCH
STREAM
OLD
SWAMP
RIVER
FRENCH
STREAM
FRENCH
STREAM
0
625
1,250
2,500
Feet
Tetra Tech NUS, Inc.
SITE MAP
AOC 60 - EAST MAT DITCH
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
FILE
AOC60_SITE_MAP.MXD
SCALE
AS NOTED
FIGURE NUMBER
FIGURE NO. 2-1
REV
0
DATE
10/14/08
Legend
NAS South Weymouth Boundary
AOC 60 East Mat Boundary
Old Swamp River/ French Stream
Road/Pavement
Building
Wetland

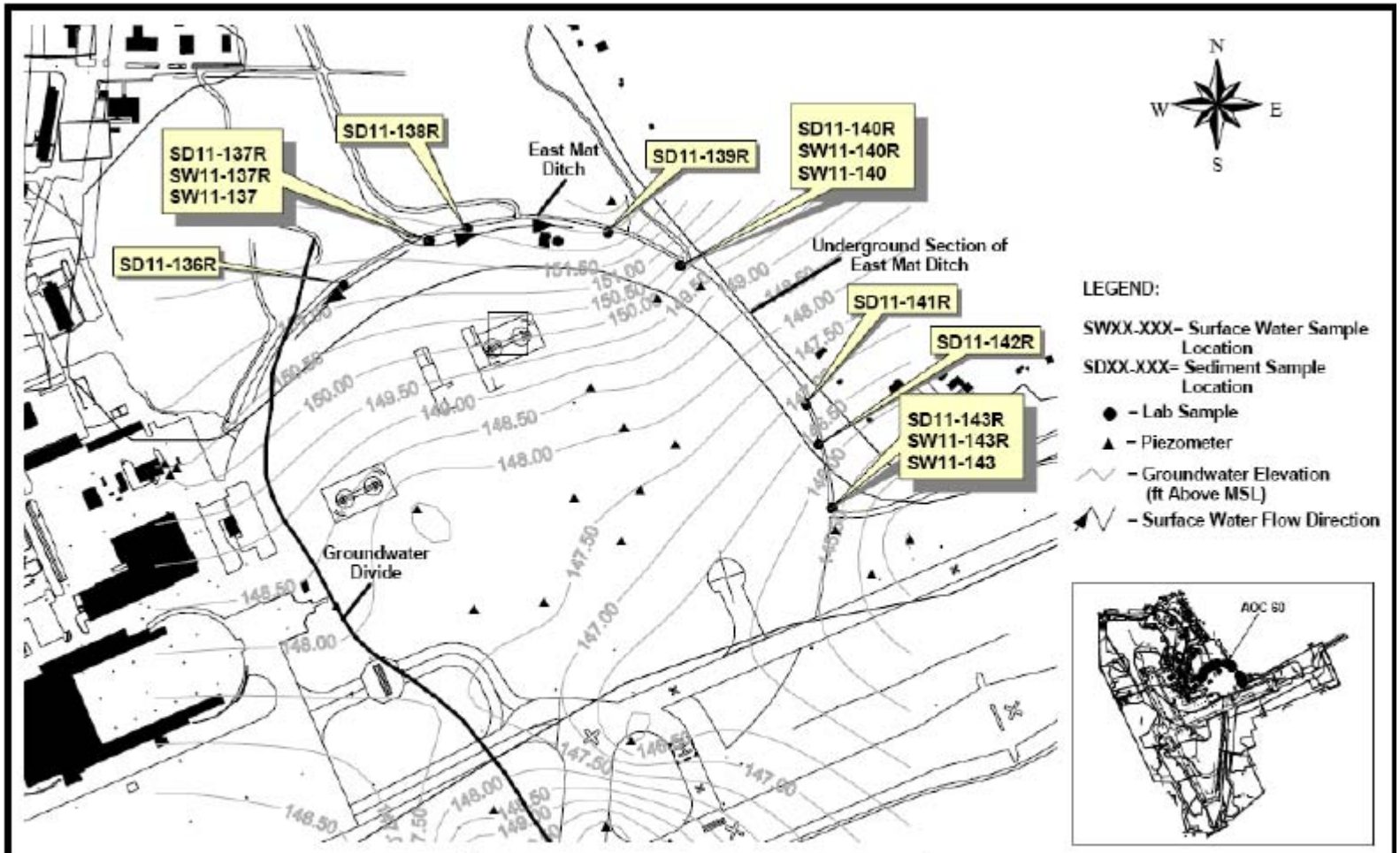
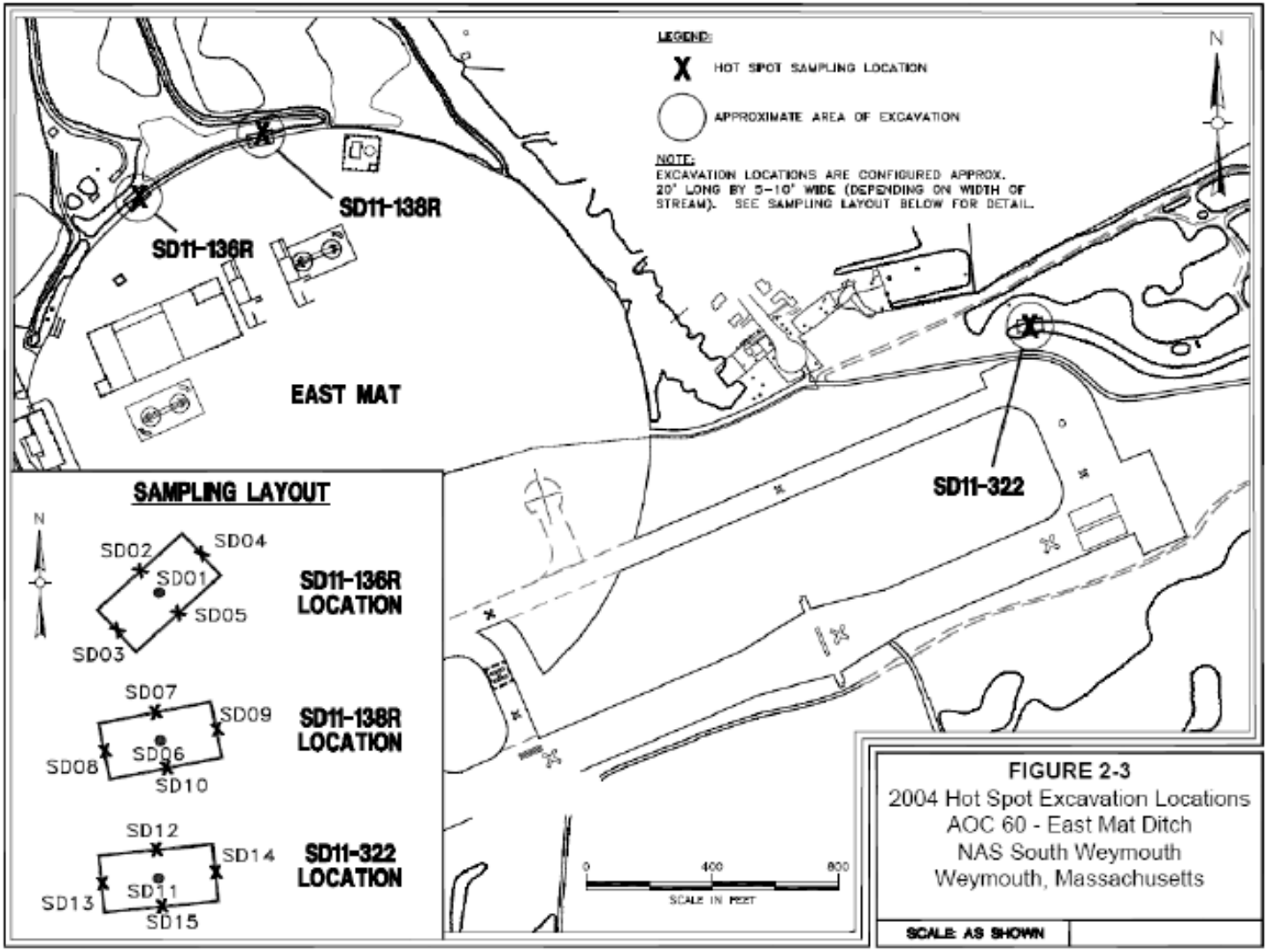


FIGURE 2-2
Phase II Supplemental Investigation Sampling Location
AOC 60- East Mat Ditch
NAS South Weymouth
Weymouth, Massachusetts


LEGEND:
HOT SPOT SAMPLING LOCATION
APPROXIMATE AREA OF EXCAVATION
NOTE:
EXCAVATION LOCATIONS ARE CONFIGURED APPROX. 20' LONG BY 5-10' WIDE (DEPENDING ON WIDTH OF STREAM). SEE SAMPLING LAYOUT BELOW FOR DETAIL.
N
SD11-138R
SD11-136R
EAST MAT
SD11-322
SAMPLING LAYOUT
SD02
SD04
SD01
SD05
SD03
SD11-136R LOCATION
SD07
SD09
SD06
SD08
SD10
SD11-138R LOCATION
SD12
SD14
SD11
SD13
SD15
SD11-322 LOCATION
0
400
800
SCALE IN FEET
FIGURE 2-3
2004 Hot Spot Excavation Locations
AOC 60 - East Mat Ditch
NAS South Weymouth
Weymouth, Massachusetts
SCALE: AS SHOWN

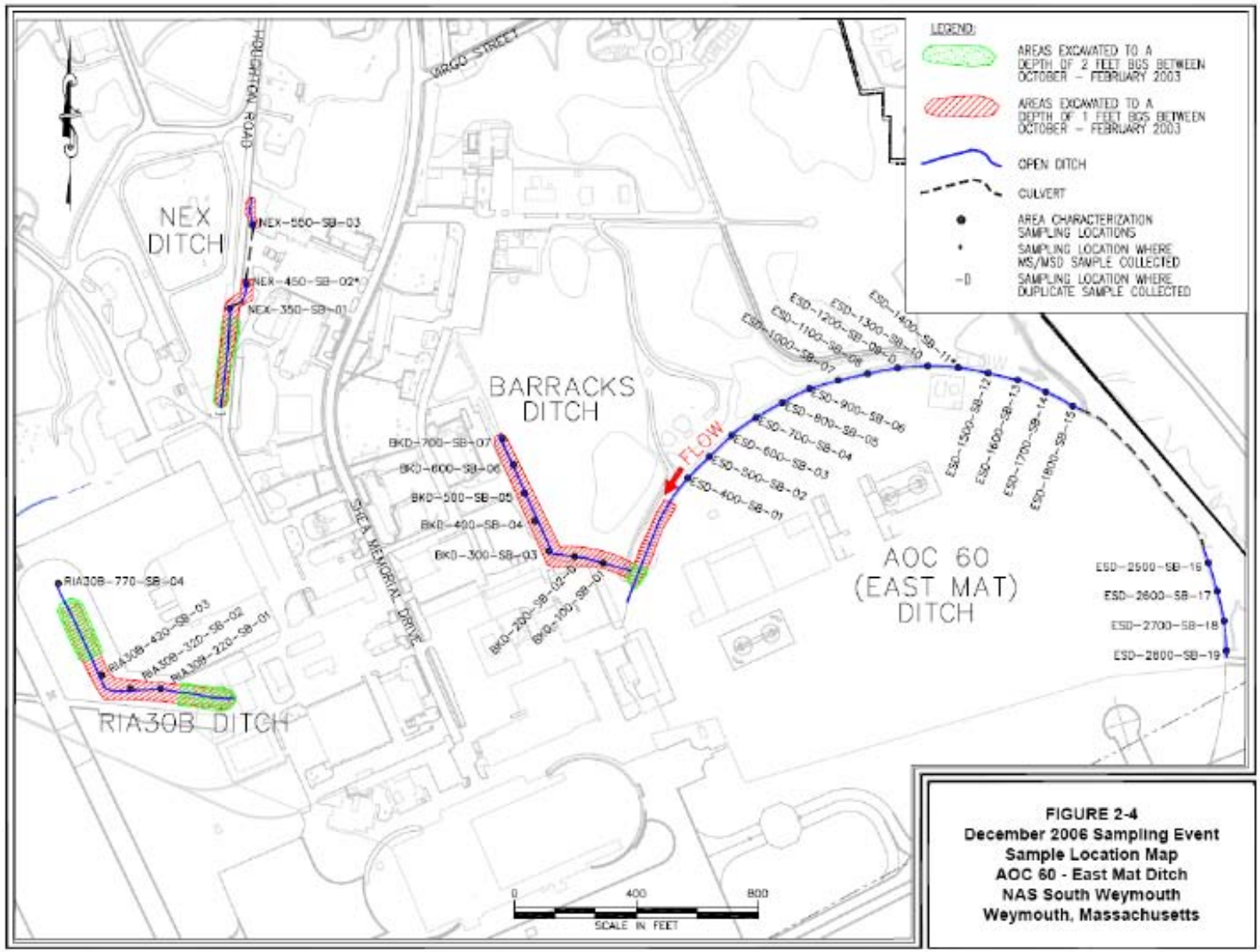


FIGURE 2-4
December 2006 Sampling Event
Sample Location Map
AOC 60 - East Mat Ditch
NAS South Weymouth
Weymouth, Massachusetts

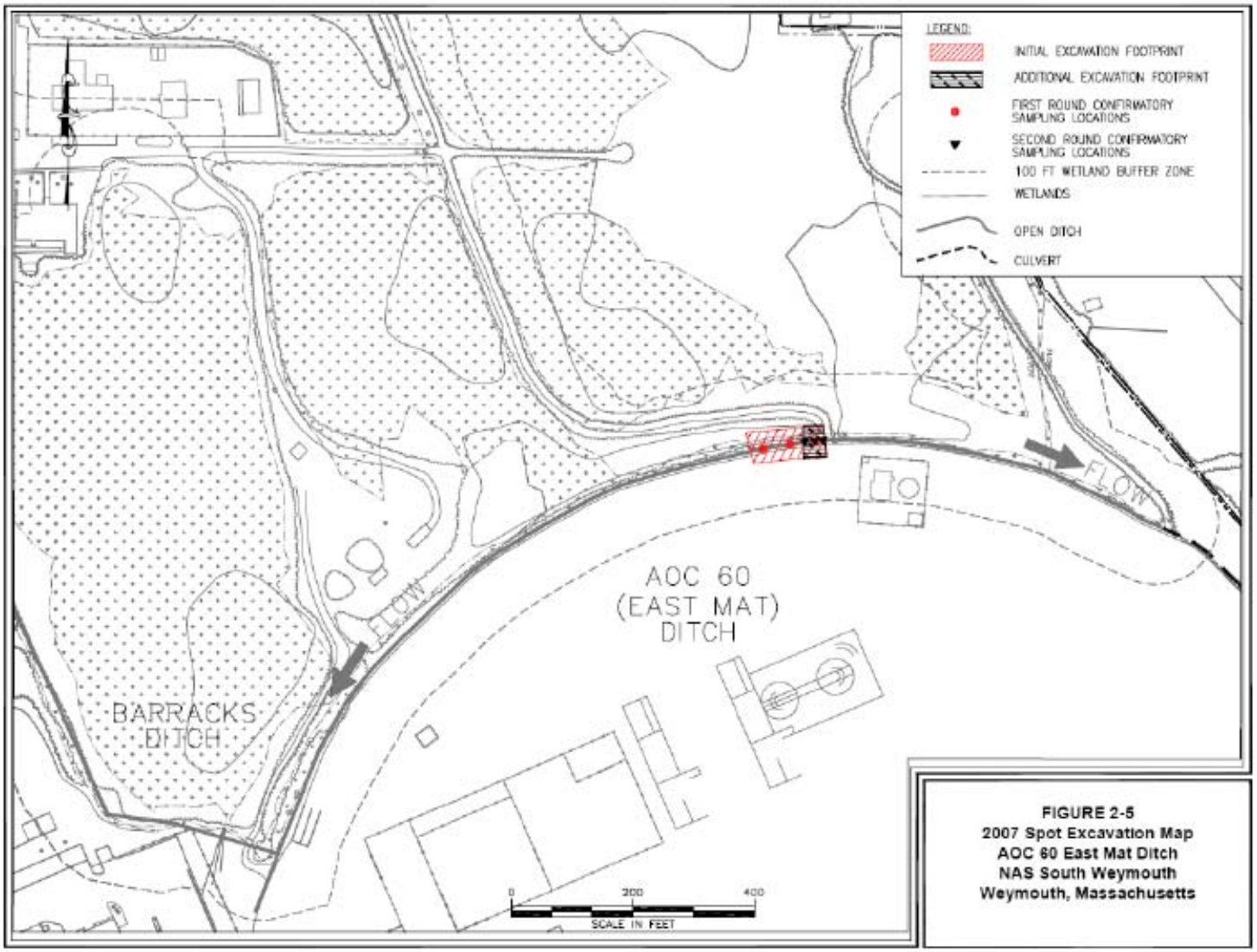
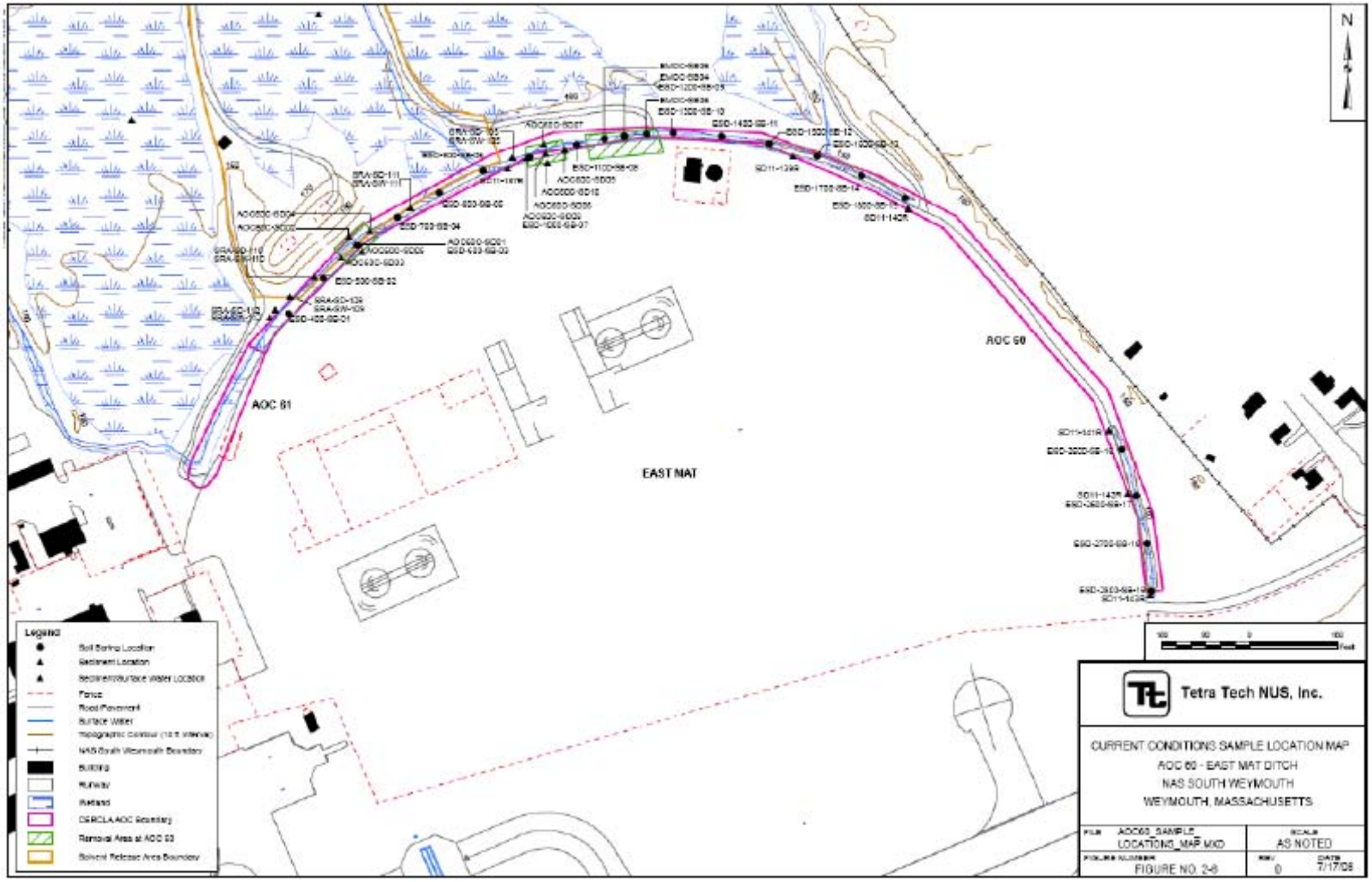


FIGURE 2-5
2007 Spot Excavation Map
AOC 60 East Mat Ditch
NAS South Weymouth
Weymouth, Massachusetts


N
AOC 60
AOC 61
EAST MAT
Legend
Soil Boring Location
Sediment Location
Sediment/Surface Water Location
Fence
Road/Pavement
Surface Water
NAS South Weymouth Boundary
Building
Runway
Wetland
CERCLA AOC Boundary
Removal Area at AOC 60
Solvent Release Area Boundary
Tetra Tech NUS, Inc.
CURRENT CONDITIONS SAMPLE LOCATION MAP
AOC 60 - EAST MAT DITCH
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
AOC60_SAMPLE LOCATIONS_MAP.MXD
AS NOTED
FIGURE NO. 2-6
0
7/17/08

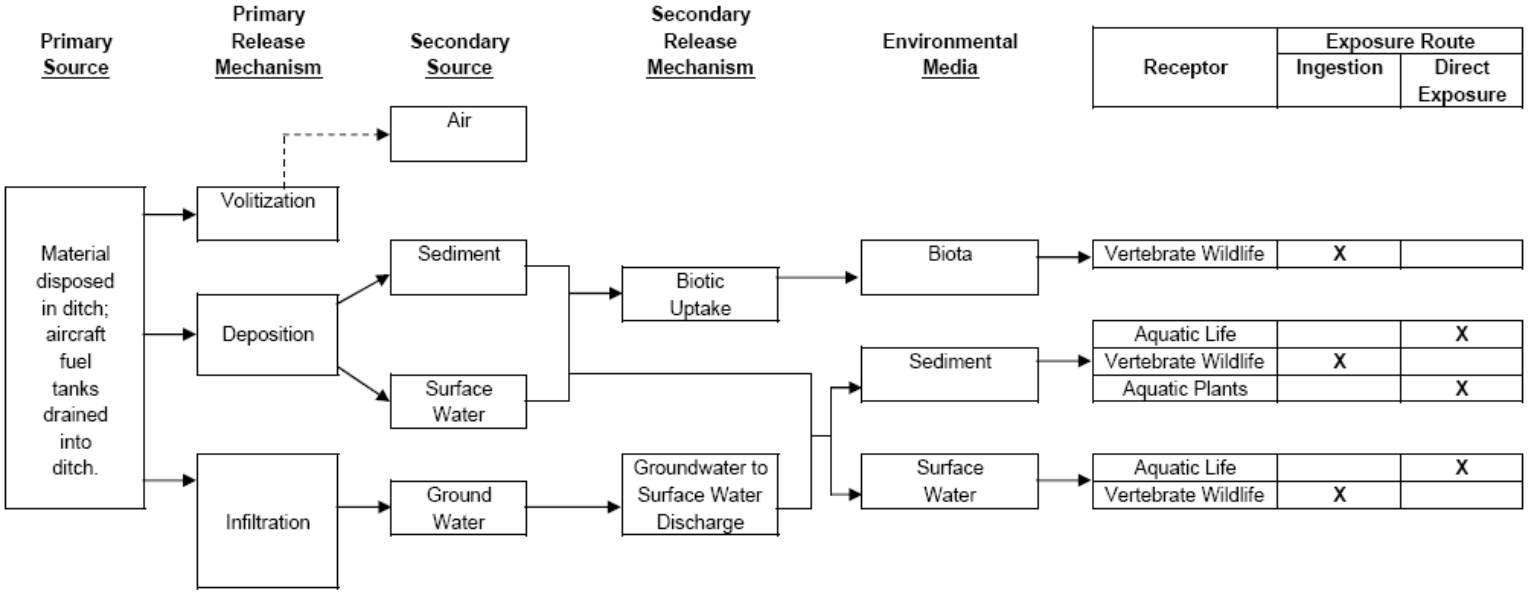


FIGURE 2-7
CONCEPTUAL SITE MODEL
AOC 60 - EAST MAT DRAINAGE DITCH
STREAMLINED ECOLOGICAL RISK ASSESSMENT
NAVAL AIR STATION SOUTH WEYMOUTH

Source: Stone & Webster, 2004.

PART 3—RESPONSIVENESS SUMMARY

I. STAKEHOLDER ISSUES AND NAVY RESPONSES

The Navy held a Public Hearing for the Proposed Plan for Areas of Concern (AOCs) 60 and 61 on October 16, 2008; verbal comments were received from three individuals. A copy of the transcript for the public hearing is provided as Appendix E1. Responses to the verbal comments are provided in Section III of this Responsiveness Summary. Written comments concerning AOC 60 received during the public comment period are provided in Appendix E2. Responses to the written comments are provided in Section III of this Responsiveness Summary.

II. TECHNICAL AND LEGAL ISSUES

The Navy has reviewed all comments received and the Navy does not believe any of the public hearing or written comments necessitate a change from the No Further Action proposal for AOC 60.

Therefore, the Navy and EPA believe that there is sufficient technical basis to proceed with the No Further Action ROD for AOC 60. By proceeding with this ROD, the Navy has completed all required CERCLA actions/investigations at the site.

III. COMMENT RESPONSES

Verbal Comments and Response

Note that the following verbal comments are paraphrased. Refer to the hearing transcript (Appendix E1) for the complete version of the comments recorded during the public hearing held on October 16, 2008.

1. Comment from Harvey Welch, Weymouth—Mr. Welch asked if there would be any other testing in the future now that Navy has confirmed there are no concerns at AOC 60.

Response—The process followed to investigate the site and to collect and evaluate the data led to a conclusion that the removal actions reduced the identified risks to a point where there is no unacceptable risk to human health or the environment. In accordance with CERCLA, if no unacceptable risks to human health or the environment are identified, No Further Action is required. EPA and MassDEP have concurred with this decision. As a result no other testing at this site is required.

2. Comment from Peter Scannell, Weymouth—Mr. Scannell expressed a concern that AOC 60 will not be identified in perpetuity as an area of concern. In addition, he stated that he feels it is unacceptable that there are acceptable levels of risk associated with the site.

Response— When property is transferred, the Finding of Suitability to Transfer (FOST) document is incorporated into the deed. The FOST will contain information about the environmental conditions on the property to be transferred, including closed environmental sites and a notice of any CERCLA hazardous substances known to have been present on the property. Therefore via the deed, future property owners would be informed of the environmental conditions of the property.

The data for the post-excavation samples collected during the removal action were screened against human health and ecological benchmarks, and basewide background levels. Based on the conclusion that the contaminants of concern had been removed or their concentrations significantly reduced, and no further action is required, there are no restrictions on the site regarding future use. The concentrations of various chemicals that remain at the site do not pose an unacceptable risk to human health or the

environment as defined by CERCLA. This conclusion is consistent with the CERCLA process used to evaluate risk at Superfund sites, including the sites at NAS South Weymouth.

3. Comment from James Cunningham, Weymouth—Mr. Cunningham commented that he thinks the Navy is doing a good job cleaning up the Base and is pleased that contaminated sediments and soils have been removed from these sites. He also expressed a concern that closing the Naval Air Station was a mistake and will prove detrimental to military recruitment and preparedness and will have an impact on the regional economy and national security.

Response—The Navy appreciates Mr. Cunningham's recognition of the work performed in cleaning up the environmental sites at the Base.

Written Comments and Response

The written comment received is included in Appendix E.2.

1. Comments from M. Bromberg, Rockland (received November 4, 2008, after the close of the public comment period)

I question whether or not the western section of the East Mat Ditch is worthy of a **No Further Action** decision at this time. IR Site 11 (The Solvent Release Area) overlays the ditch in this area. The Proposed Plan does not indicate that there has been solvents found in the ditch related to IR Site 11.

In my opinion, any issues with the East Mat Ditch that are related to the SRA, should be resolved before a **No Further Action** decision for the Ditch in it's entirety should be made.

Although the Navy has concluded that no unacceptable risk to human health or ecological receptors remained at the East Mat Ditch, certainly the hydrological connection with the SRA should be more thoroughly evaluated to rule out future risks at the ditch.

I had just found out last Friday, October 31st, from one of the regulators that the RI Report on IR Site 11 was available for review. Seems to me the public should have been aware of any other concerns related to the East Mat Ditch before they were asked to comment on it.

Response – The 2008 AOC 60 (East Mat Ditch) Technical Memorandum evaluated confirmatory data collected following the removal actions in the ditch as well as sediment and surface water data collected during the SRA RI field program. The Technical Memorandum noted that the portion of the East Mat Ditch adjacent to the SRA site would be evaluated in the SRA RI report: EPA and MassDEP agreed with this management approach. The removal actions completed for AOC 60 successfully addressed the identified site risks from polycyclic aromatic hydrocarbons (PAH) in sediments. EPA and MassDEP have concurred with the No Further Action decision for AOC 60; therefore all issues associated with the AOC 60 contaminant of concern, PAHs, have been resolved. While the media of concern for AOC 60 include sediment and surface water, the SRA RI evaluates soil and groundwater, in addition to sediment and surface water. SRA site hydrogeology is discussed in detail in the SRA RI report. The SRA study area encompasses a portion of the East Mat Ditch and the SRA RI report includes detailed discussions of the nature and extent of contamination, and the risks associated with the contaminants of concern in the SRA study area. The AOC 60 Technical Memorandum and SRA RI report are available at the local information repositories.

APPENDIX A: MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION LETTER OF CONCURRENCE

Refer to attached copy.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

Mr. James T. Owens, Director
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

Re: Record of Decision
Area of Concern 60
Former South Weymouth NAS
MassDEP RTN 4-3002621
February 13, 2009

Dear Mr. Owens:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the *Record of Decision, Area of Concern 60 – East Mat Drainage Ditch, Naval Air Station South Weymouth*, dated December 2008. The Record of Decision (ROD) summarizes the results from the investigations conducted during the Environmental Baseline Survey (EBS) and the results from the removal actions that were conducted to address unacceptable risks to human health of the environment, and documents the Navy's rationale for selecting a No Further Action decision for the site. MassDEP concurs with the selected decision.

If you have any questions or comments, please contact David Chaffin, Project Manager (617-348-4005), or Anne Malewicz, Federal Facilities Section Chief (617-292-5659).

Sincerely,

Janine Commerford
Assistant Commissioner

cc: D. Barney, USN-S. Weymouth
K. Keckler, USEPA
Executive Director, SSTTDC
RAB Members
J. Naparstek, MADEP-Boston

APPENDIX B: REFERENCES

EA Engineering, Science, and Technology (EA), 2001. Final Streamlined Human Health Risk Assessment Work Plan, Areas of Concern at NAS South Weymouth, South Weymouth, Massachusetts. September 2001.

South Shore Tri-Town Development Corporation (SSTTDC), 2005a. Zoning and Land Use By-Laws for the Naval Air Station South Weymouth. May 5, 2005.

SSTTDC, 2005b. Reuse Plan for Naval Air Station South Weymouth. May 5, 2005.

Stone & Webster Environmental Technology & Services (Stone & Webster), 1996. Final Report, Phase I Environmental Baseline Survey. November 1996.

Stone & Webster, 1999. Phase II Environmental Baseline Survey Sampling Work Plan Addendum No. 1, Final, Rev. 1. November 1999.

Stone & Webster, 2000a. Final Summary of Statistics for NAS South Weymouth. February 2000.

Stone & Webster, 2000b. Phase II Environmental Baseline Survey Decision Document for Review Item Area 60 East Mat Ditch. June 2000.

Stone & Webster, 2000c. Supplement to Final Summary Report of Background Data Summary Statistics for NAS South Weymouth. November 2000.

Stone & Webster, 2004. Final AOC 60 East Mat Drainage Ditch Streamlined Ecological Risk Assessment at Naval Air Station South Weymouth, MA. August 19, 2004.

Tetra Tech EC Inc. (TtEC, Inc.), 2006. Final Closeout Report Action Memorandum for Area of Concern 60 East Mat Ditch Hotspot Excavations. May 2006.

TtEC, Inc., 2007a. Results Of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale, and Barracks Ditch. October 2007.

TtEC, Inc., 2007b. Final Work Plan Supplement for East Mat Ditch Spot Excavation at Former Naval Air Station South Weymouth (NAS SOWEY) South Weymouth, Massachusetts. October 2007.

TtEC, Inc. 2008a. Final Closeout Report for Review Item Area 61, TACAN Outfall Excavation, Storm Water Drainage System Cleaning, and Associated Ditch/Swale Excavation at the Naval Air Station South Weymouth, Massachusetts. May 30, 2008.

TtEC, Inc., 2008b. Final Closeout Report for East Mat Ditch Spot Excavation at Former Naval Air Station South Weymouth (NAS SOWEY) South Weymouth, Massachusetts. September 2008.

Tetra Tech NUS, Inc. (TtNUS, Inc.), 2007. Site Management Plan, Revision 7.0, Naval Air Station South Weymouth, Massachusetts. September 2007.

TtNUS, Inc., 2008. Final Technical Memorandum for Area of Concern 60 East Mat Ditch, Naval Air Station South Weymouth, Weymouth Massachusetts. August 2008.

APPENDIX C: GLOSSARY

Area of Concern (AOC)—An area initially identified during the Environmental Baseline Survey as a Review Item Area (RIA) and currently being investigated under CERCLA. These sites require either removal actions or risk assessments to identify the potential current and future effects on human health and the environment.

Background Level—Chemicals or concentrations of chemicals present in the environment due to naturally occurring geochemical processes and sources, or to human activities not related to specific point sources or site releases.

Benchmark—Concentration of a chemical considered to be protective of human health or the environment.

Bioaccumulation—The net accumulation of a chemical by an organism as a result of uptake from all routes of exposure.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)—A federal law passed in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act. The Act created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Navy compliance with CERCLA/Superfund Amendments and Reauthorization Act (see Installation Restoration Program definition) is funded by the Department of Defense under the Defense Environmental Restoration Act.

Contaminant of Concern (COC) – Chemicals of concern are chemicals identified in the risk assessments as the primary drivers of unacceptable risks.

Contaminant of Potential Concern (COPC)—A compound or element identified as a possible source of risk, based upon a comparison between the chemical concentration and established screening levels.

Engineering Evaluation and Cost Analysis (EE/CA) — A description and engineering study of potential cleanup alternatives, e.g., removal actions, for a site.

Environmental Baseline Survey (EBS)—An environmental assessment conducted by the Navy at bases that have been closed under the Base Realignment and Closure (BRAC) Act.

Groundwater—Water found beneath the Earth's surface in soil pore spaces and fractures in geologic formations. When formations yield water in sufficient quantity and quality (i.e., an aquifer), groundwater is often used as a water supply.

J—Analytical qualifier, indicates that the analytical result is an estimated value.

National Priorities List (NPL)—U.S. Environmental Protection Agency's list of sites for priority cleanup under the Superfund program.

No Further Action—Under CERCLA, if remediation is conducted in order to achieve the condition of no unacceptable risk, then the site requires "no further action" under CERCLA.

Polycyclic Aromatic Hydrocarbons—Chemical compounds such as benzo(a)pyrene, naphthalene, anthracene, and phenanthrene, which are usually byproducts of incomplete combustion. PAHs can occur naturally (i.e. from forest fires) and as the consequence of human activities.

Preliminary Remediation Goals (PRGs) — Target cleanup concentrations for individual contaminants of concern in each media.

Proposed Plan—A CERCLA document that summarizes the lead agency's (in this case, the Navy's) preferred cleanup remedy for a site and provides the public with information on how they can participate in the remedy selection process.

Receptors—The ecological entity exposed to a stressor (i.e., any physical, chemical, or biological entity that can induce an adverse response to an individual organism or to an ecosystem).

Record of Decision (ROD)— A legal, technical, and public document under CERCLA that explains the rationale and final cleanup decision for a site. It contains a summary of the public's involvement in the cleanup decision.

Removal Action— A type of short-term cleanup that can be conducted at any time during the CERCLA process to address threats to human health or the environment. Typically, "time critical" removal actions are conducted when it is determined that less than 6 months are available before site activities must be initiated and when the site has less complex or less extensive contamination than sites that would require long-term cleanup. An Action Memorandum is prepared to outline the removal action.

Responsiveness Summary— A CERCLA document containing the responses to the formal comments submitted by the public regarding the Proposed Plan. This summary is issued as an appendix to the ROD.

Review Item Area (RIA)— A site identified during a Phase I EBS that required further study for potential contamination.

Streamlined Ecological Risk Assessment—An ecological risk assessment using a limited number of conservative exposure pathways, receptors, and exposure assumptions agreed upon in advance with the regulatory agencies. Results indicating acceptable risk under the most conservative approach (for example, the residential scenario) would therefore indicate acceptable risk under all other scenarios.

Toxic Substances Control Act (TSCA) – A federal law passed in 1976 to regulate industrial chemicals produced or imported into the United States. PCBs are regulated under TSCA.

APPENDIX D: ADMINISTRATIVE RECORD INDEX

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
1.0 SITE ASSESSMENT									
1.8 Environmental Baseline Survey									
1.8		1.8-1	R	Phase I Environmental Baseline Survey	11/96	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.8		1.8-2	R	Phase I EBS Report Errata	11/10/97	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.8		1.8-3	R	Draft Phase II Environmental Baseline Survey Decision Document for Review Item Area 60, East Mat Drainage Ditch, Naval Air Station South Weymouth, MA	6/00	Stone & Webster	U.S. Department of the Navy	A.R. File	60
1.9 Work Plans									
1.9		1.9-1	R	Final Phase II Environmental Baseline Survey Sampling Work Plan (Rev. 1)	10/13/98	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide RIAs
1.9		1.9-2	L	Meeting Minutes Streamlined Risk Assessment Process South Weymouth Naval Air Station	9/00	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	Basewide
1.9		1.9-3	R	Final Streamlined Human Health Risk Assessment Work Plan, Areas of Concern at Naval Air Station South Weymouth, South Weymouth, MA	9/01	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	4A, 4B, 9B, 53, 55A, 55B, 55C, 60, 84, 101
1.9		1.9-4	R	Final (Revision 1) Streamlined Ecological Risk Assessment Work Plan, Areas of Concern at Naval Air Station South Weymouth, South Weymouth, MA	4/30/02	Stone & Webster	U.S. Department of the Navy	A.R. File	4A, 4B, 9B, 53, 55A, 55B, 55C, 60, 84, 101
1.9		1.9-5	R	Work Plan for AOC 60 East Mat Ditch Hotspot Excavations	1/9/04	TtEC	U.S. Department of the Navy	A.R. File	60
1.9		1.9-6	R	Draft Sampling Plan for AOC 60, RIA 30B, Barracks Ditches	9/20/06	TtEC	U.S. Department of the Navy	A.R. File	60, 61, 30B
1.9		1.9-7	L	[Comments on the] Draft Sampling Plan for AOC 60, RIA 30B, Barracks Ditches	10/5/06	MassDEP	U.S. Department of the Navy	A.R. File	60, 61, 30B
1.9		1.9-8	R	Draft Sampling Plan for the West Mat and East Mat Storm Drain Systems	11/7/06	TtEC	U.S. Department of the Navy	A.R. File	60, 112

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
1.9		1.9-9	L	[Comments on the] Draft Sampling Plan for AOC 60, RIA 30B, Barracks Ditches	10/5/06	EPA	U.S. Department of the Navy	A.R. File	60, 61, 30B
1.9		1.9-10	L	[Comments on the] Sampling Plan for the West Mat and East Mat Storm Drain Systems	11/17/06	MassDEP	U.S. Department of the Navy	A.R. File	60, 112
1.9		1.9-11	R	Final Sampling Plan for AOC 60, RIA 30B, Barracks Ditches	12/06	TtEC	U.S. Department of the Navy	A.R. File	60, 61, 30B
1.9		1.9-12	L	[Comments on the] Sampling Plan for the West Mat and East Mat Storm Drain Systems	12/4/06	EPA	U.S. Department of the Navy	A.R. File	60, 112
1.9		1.9-13	L	[Comments on the] Final Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale, and Barracks Ditches	6/5/07	MassDEP	U.S. Department of the Navy	A.R. File	60, 61, 30B,
1.9		1.9-14	L	[Comments on the] Final Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale, and Barracks Ditches	6/18/07	EPA	U.S. Department of the Navy	A.R. File	60, 61, 30B,
1.9		1.9-15	L	Draft Work Plan Supplement for East Mat Ditch Spot Excavation	8/15/07	TtEC	U.S. Department of the Navy	A.R. File	60
1.9		1.9-16	L	[Comments on the] Draft Work Plan Supplement for East Mat Ditch Spot Excavation	8/17/07	MassDEP	U.S. Department of the Navy	A.R. File	60
1.9		1.9-17	L	[Comments on the] Draft Work Plan Supplement for East Mat Ditch Spot Excavation	8/31/07	EPA	U.S. Department of the Navy	A.R. File	60
1.9		1.9-18	L	Final Work Plan Supplement for East Mat Ditch Spot Excavation	10/8/07	TtEC	U.S. Department of the Navy	A.R. File	60
3.0 REMEDIAL INVESTIGATION									
3.2 Sampling and Analysis Data									
3.2		3.2-1	R	Final Phase I Remedial Investigation	7/7/98	ENSR	U.S. Department of the Navy	A.R. File	Basewide

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.2		3.2-2	R	Final Summary Report of Background Data Summary Statistics for Naval Air Station South Weymouth	2/24/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-3	R	Errata to the Final Summary Report of Background Data Summary Statistics	3/8/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-4	R	Supplement to Final Summary Report of the Background Data Summary Statistics for NAS South Weymouth	11/08/02	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2		3.2-5	R	Final (Rev 1) Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale, and Barracks Ditches, Naval Air Station South Weymouth, South Weymouth, Massachusetts	10/10/07	TtEC	U.S. Department of the Navy	A.R. File	60, 61, 30B,
3.2		3.2-6	L	[Comments on the] Final (Rev 1) Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale, and Barracks Ditches	10/31/07	EPA	U.S. Department of the Navy	A.R. File	60, 61, 30B,
3.2		3.2-7	L	[Response to EPA Comments on the] Draft Final Closeout Report for East Mat Ditch Spot Excavation	6/25/08	TtEC	U.S. Department of the Navy	A.R. File	60
3.2		3.2-8	R	Final Closeout Report for East Mat Ditch Spot Excavation At Former Naval Air Station South Weymouth (NAS SOWEY) South Weymouth, Massachusetts	9/8/08	TtEC	U.S. Department of the Navy	A.R. File	60
3.6 Remedial Investigation Reports									
3.6		3.6-1	R	Draft Streamlined Ecological Risk Assessment, AOC 60	1/8/02	Stone & Webster/EA	U.S. Department of the Navy	A.R. File	60
3.6		3.6-2	L	[Comments on the] Draft Closeout Removal Action Memorandum	5/5/04	MassDEP	U.S. Department of the Navy	A.R. File	60
3.6		3.6-3	R	Final Streamlined Ecological Risk Assessment, AOC 60 East Mat	8/19/04	Stone & Webster/EA	U.S. Department of the Navy	A.R. File	60

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.6		3.6-4	L	[Comments on the] Draft Final (Rev. 0) Closeout Removal Action Memorandum	1/20/05	MassDEP	U.S. Department of the Navy	A.R. File	60
3.6		3.6-5	L	[Comments on the] Draft Final (Rev. 1) Closeout Removal Action Memorandum	4/13/06	EPA	U.S. Department of the Navy	A.R. File	60
3.6		3.6-6	R	Final Closeout Removal Action Memorandum [includes Final Closeout Report and Responses to Comments]	1/6/06	TtEC	U.S. Department of the Navy	A.R. File	60
3.6		3.6-7	R	Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale and Barracks Ditches	5/21/07	TtEC	U.S. Department of the Navy	A.R. File	60, 61
3.6		3.6-8	L	[Comments on the] December 2006 Sampling Event, AOC 60 and AOC 61, Former South Weymouth NAS, MassDEP RTN 4-3002621	6/5/07	MassDEP	U.S. Department of the Navy	A.R. File	60, 61
3.6		3.6-9	L	[Comments on the] December 2006 Sampling Event, AOC 60 and AOC 61, Former South Weymouth NAS, MassDEP RTN 4-3002621	6/18/07	EPA	U.S. Department of the Navy	A.R. File	60, 61
3.6		3.6-10	R	Final Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale and Barracks Ditches (R1)	10/10/07	TtEC	U.S. Department of the Navy	A.R. File	60, 61
3.6		3.6-11	L	[Comments on the] Final Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale and Barracks Ditches	10/31/07	EPA	U.S. Department of the Navy	A.R. File	60, 61
3.6		3.6-12	L	[Comments on the] December 2006 Sampling Event, AOC 60 and AOC 61, Former South Weymouth NAS, MassDEP RTN 4-3002621(R1)	9/5/08	EPA	U.S. Department of the Navy	A.R. File	60, 61
3.6		3.6-13	R	Final Results of December 2006 Sampling Event for AOC 60, RIA 30B, NEX Swale and Barracks Ditches (R2)	10/06/08	TtEC	U.S. Department of the Navy	A.R. File	60, 61

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
4.0 FEASIBILITY STUDY									
4.0		4.0-1	R	Final EE/CA for TACAN Outfall Sediment Removal and Storm Sewer System Cleaning	4/1/05	Foster Wheeler	U.S. Department of the Navy	A.R. File	60, 61
4.8 Proposed Plans for Selected Remedial Action									
4.8		4.8-1	R	Final Proposed Plan, AOC 60 & 61, Naval Air Station South Weymouth, Weymouth, Massachusetts	10/01/08	U.S. Department of the Navy	Public	A.R. File	60, 61
5.0 RECORD OF DECISION									
5.3 Responsiveness Summaries									
5.3		5.3-1	L	Copy of Public Comments Received on the Proposed Plan for AOC 60 (included as Appendix E.2 of the Record of Decision)	[pending]	Public	U.S. Department of the Navy	A.R. File	60
5.3		5.3-2	R	Transcript of the Public Hearing on the Proposed Plan for the AOC 60 (included as Appendix E.1 of the Record of Decision)	[pending]	Public	U.S. Department of the Navy	A.R. File	60
5.3		5.3-3	R	Responsiveness Summary (included as Part 3 of the Record of Decision)	[pending]	U.S. Department of the Navy	Public	A.R. File	60
5.4 Record of Decision									
5.4		5.4-1	R	Record of Decision (Parts 1 and 2), Area of Concern 60 – East Mat Drainage Ditch, Naval Air Station South Weymouth, Massachusetts	[pending]	U.S. Department of the Navy and EPA	Public	A.R. File	60
10.0 ENFORCEMENT/NEGOTIATION									
10.16 Federal Facility Agreements									
10.16		10.16-1	L	Federal Facility Agreement for South Weymouth Naval Air Station National Priorities List Site	4/00	EPA	U.S. Department of the Navy	A.R. File	Basewide
13.0 COMMUNITY RELATIONS									
13.2 Community Relations Plan									
13.2		13.2-1	R	Community Relations Plan Naval Air Station South Weymouth, Massachusetts	7/98	U.S. Department of the Navy	Public	A.R. File	Basewide

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
13.4 Public Meetings/Hearings									
13.4		13.4-1		Restoration Advisory Board Workshop Guidebook	7/94	EPA	Public	A.R. File	Basewide
13.4		13.4-2		Legal Notice: Availability of the Proposed Plan, and Notification of Public Meeting and Comment Period	[pending]	Tetra Tech NUS	Public	A.R. File	60
13.4		13.4-3		Public Notice: Notification of Restoration Advisory Board Meetings (Monthly)	1995-2007	Tetra Tech NUS and EA Engineering, Science, and Technology	Public	A.R. File	Basewide
13.4		13.4-4		Restoration Advisory Board Meeting Minutes (Monthly)	1995-2007	U.S. Department of the Navy	Public	A.R. File	Basewide
13.4		13.4-5		Legal Notice, Record of Decision Available For AOC 60	[pending]	Tetra Tech NUS	Public	A.R. File	60
13.5 Fact Sheets/Information Updates									
13.5		13.5-1	R	The Former Naval Air Station South Weymouth Environmental Fact Sheet	2/98	EA Engineering, Science, and Technology	Public	A.R. File	Basewide
13.6 Mailing Lists									
13.6		13.6-1		Community Relations Mailing List: State, Federal and Local Agencies (including Media and Public Libraries)	N/A	U.S. Department of the Navy	N/A	A.R. File	Basewide
13.6		13.6-2		Community Relations Mailing List: Other Parties (e.g., general public) – CONFIDENTIAL (due to potential Privacy Act violations)	N/A	U.S. Department of the Navy	N/A	A.R. File	Basewide

APPENDIX D: ADMINISTRATIVE RECORD INDEX (cont.)

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
17.0 SITE MANAGEMENT RECORDS									
17.6 Site Management Plans and Reviews									
17.6		17.6-1	R	Site Management Plan Naval Air Station South Weymouth, Massachusetts	10/99	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-2	R	Site Management Plan Revision 1.0 Naval Air Station South Weymouth, Massachusetts	10/00	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-3	R	Site Management Plan Revision 2.0 Naval Air Station Weymouth, Massachusetts	11/01	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-4	R	Site Management Plan Revision 3.0 Naval Air Station South Weymouth, Massachusetts	4/03	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-5	R	Site Management Plan Revision 4.0 Naval Air Station South Weymouth, Massachusetts	12/04	EA Engineering, Science, and Technology	U.S. Department of the Navy	A.R. File	IR SItes
17.6		17.6-6	R	Draft Site Management Plan Revision 5.0 Naval Air Station South Weymouth, Massachusetts	8/05	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites
17.6		17.6-7	R	Site Management Plan Revision 6.0 Naval Air Station South Weymouth, Massachusetts	10/31/06	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites
17.6		17.6-8	R	Site Management Plan Revision 7.0 Naval Air Station South Weymouth, Massachusetts	09/07	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites
17.6		17.6-9	R	Draft Site Management Plan Revision 8.0 Naval Air Station South Weymouth, Massachusetts	09/08	Tetra Tech NUS	U.S. Department of the Navy	A.R. File	IR Sites

(a) R = Report; L = Letter.

NOTES:

AOC = Area of Concern
A.R. File = Administrative Record File
EBS = Environmental Baseline Survey
N/A = Not Applicable
NAS = Naval Air Station
RIA = Review Item Area
EPA = (U.S.) Environmental Protection Agency (Region 1)
MassDEP = Massachusetts Department of Environmental Protection

APPENDIX E.1: TRANSCRIPT OF PUBLIC HEARING ON THE PROPOSED PLAN FOR AOC 60

Refer to attached copy.

NAVAL AIR STATION, SOUTH WEYMOUTH

AREAS OF CONCERN 60 AND 61

PUBLIC HEARING

Thursday, October 16, 2008
Conference Center
Shea Memorial Drive
Naval Air Station
South Weymouth, MA
8:15 p.m.

Leavitt Reporting, Inc.

1207 Commercial Street, Rear
Weymouth, MA 02189
www.leavittreporting.com

Tel. 781-335-6791
Fax: 781-335-7911
leavittreporting@comcast.net

Hearings ◆ Conferences ◆ Legal Proceedings

P R O C E E D I N G S

MS. SKELTON ROBERTS: We're going to formally open up. We're going to formally begin the public hearing for Areas of Concern 60 and 61.

What we'd like to do is get your public comments. Those will be recorded for the record. What we'd like you to do is tell us your name and then state your comment. Okay? So let's start whenever people are ready.

MR. WELCH: My name is Harvey Welch and I'd like to know if there's going to be any further test now that you've confirmed that there's no concerns about 60 and 61.

I'd like to know in the future is there going to be any other test to see if there's any other contamination running through these outfall pipes and the drainage ditches, and is there going to be any other test done to confirm that there is no more contamination.

MS. SKELTON ROBERTS: Okay. Thank you.

MR. SCANNELL: Peter Scannell, Weymouth. I have deep concerns that AOC 60 and 61 will not be identified in perpetuity as areas of concern.

Knowing that it has been deemed that there are acceptable levels of risk associated with these plans, I find that in itself to be unacceptable.

MR. CUNNINGHAM: James Cunningham. I think the Navy is doing a good job of cleaning up polluted areas of the Base and I am happy that the highly polluted sediments and soils have been removed.

But I truly believe that closing the South Weymouth Naval Air Station was a serious mistake on the part of the government and will prove to be a detriment to military recruitment and preparedness and will prove to have a serious impact on our regional economy and the security of our nation.

MS. SKELTON ROBERTS: Any others? Okay. You can also submit written comments on the back of the Proposed Plan. You can send them by e-mail.

Any other questions or comments? Okay. Well, thank you very much. This concludes this portion of the public hearing.

(Whereupon at 8:20 p.m. the hearing concluded.)

C E R T I F I C A T E

I hereby certify that the foregoing 3 pages contain a full, true and correct transcription of all my stenographic notes to the best of my ability taken in the above-captioned matter held at the Conference Center at the Naval Air Station in South Weymouth on Thursday, October 16, 2008, commencing at 8:15 p.m.

Linda J. Modano 10/29/08

Linda J. Modano, Registered Professional Reporter

My commission expires June 2, 2011

APPENDIX E.2: PUBLIC COMMENTS ON THE PROPOSED PLAN FOR AOC 60

Comments on the Proposed Plan received during the public comment period are attached.

Mr. Brian Helland
Remedial Project Manager
BRAC PMO Northeast
4911 South Broad Street
Philadelphia, PA 19112

RE: Proposed Plan AOC 60& 61

November 4, 2008

Dear Mr. Helland,

Please accept these comments on the Proposed Plan AOC 60 (East Mat Drainage Ditch) and AOC 61 (Tacan Outfall and Associated Areas).

I question whether or not the western section of the East Mat Ditch is worthy of a **No Further Action** decision at this time. IR Site 11 (The Solvent Release Area) overlays the ditch in this area. The Proposed Plan does not indicate that there has been solvents found in the ditch related to IR Site 11.

In my opinion, any issues with the East Mat Ditch that are related to the SRA, should be resolved before a **No Further Action** decision for the Ditch in it's entirety should be made.

Although the Navy has concluded that no unacceptable risk to human health or ecological receptors remained at the East Mat Ditch, certainly the hydrological connection with the SRA should be more thoroughly evaluated to rule out future risks at the ditch.

I had just found out last Friday, October 31st, from one of the regulators that the RI Report on IR Site 11 was available for review. Seems to me the public should have been aware of any other concerns related to the East Mat Ditch before they were asked to comment on it.

Thank you for the opportunity to comment.

Mike Bromberg
373 Forest St.
Rockland, MA. 02370